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ANNUAL REPORT OF OCEANOGRAPHIC OBSERVATIONS

海洋調査年報

VOLUME 15

1966

國立水產振興院
Fisheries Research and Development Agency
The Government of the Republic of Korea
Pusan, Korea
December, 1967

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범 례

時　刻 : 大韓民國의 標準時이며 東經 135°의 子午線을 基準으로 한 平均太陽時임.

水　溫 : 攝氏度數(℃)이며 示度는 百分之壹까지 表示하였음.

鹽　分 : 電氣傳導度 鹽分計로 測定하고 千分率(‰)로 表示함.

酸　素 : 水中溶存酸素量을 Winkler 氏 方法에 依하여 測定하고 1氣壓 0℃때의 cc/L로 表示됨.

pH : Fisher Accumet pH-meter로 測定하였음.

燐 酸 鹽 : 分光光度計 SP-600 또는 光電比色計 東京 光電式 7A型으로써 G. Deniges 方法에 依하여 測定하고 μg-at/L로 表示됨.

水　深 : Meter 法에 依하여 表示됨.

水　色 : Forel 水色標準液의 水色番號 (1~11)임.

透 明 度 : 透明度板에 依한 測定値로써 Meter 法으로 表示됨.

波　浪 : 10階級法(0~9)에 依하여 目測한 것임.

너　울 : 4階級法(0~3)에 依하여 目測한 것이며 波高는 0:0m, 1:2m未滿, 2:2~4m, 3:4m 以上임.

氣　溫 : 攝氏度數(℃)이며 示度는 拾分之壹임.

氣　壓 : Aneroid 氣壓計에 依한 觀測値이며 mb로 表示됨.

風　向 : 風向은 16方位法(磁針方位)에 依함

風　力 : 風力은 Beaufort 風力階級法에 依하여 目測한 것임.

雲　形 : 雲形은 10種 雲形法에 依함.

雲　量 : 雲量은 天空의 10等分法에 依하여 目測한 것임.

天　氣 : 天氣는 快晴(B) : 雲量0~2, 晴(BC) : 雲量 3~7, 雲(C) : 雲量 8~10, 雨(R), 霧(F), 雪(S) 等으로 區分하여 表示됨.

EXPLANTATIONS

Time	: Korean standard time used the mean solar time referred to the meridian of 135°E.
Water temperature	: Recorded in hundredths of a degree in centigrade.
Salinity	: Expressed in parts per thousandth, and measured by the inductively Coupled Salinometer Model 601 MK Ⅲ.
Oxygen	: Concentration of dissolved oxygen in volume per liter(cc/L) at 0℃ and 760 mm Hg.
pH	: Negative logarithm of the hydrogen ion concentration measured by the Fisher Accumet pH-meter.
PO_4-P	: Concentation of dissolved inorganic phosphorus-phosphate in micro-gram atoms per liter (μgat/L) determined by the G. Deniges method.
Depth	: Expressed in meters determined by the wire length and its angle or an interpolated value obtained.
Color of the sea	: Recorded in numbers of Forel Scale (1~11).
Transparency	: Expressed in meters determined by the Secchi disk,
Wind wave	: Expressed in the Scale (0~9.)
Swell	: Expressed in the Scale (0~3). The numbers of the scale and the wave height are as follows. 0:0m, 1:less than 2m. 2:2~4m, 3: greater than 4m.
Air temperature	: Recorded in tenths of a degree in Centigrade.
Atmospheric pressure	: Recorded in millimeter obtained from the direct reading of Aneroid Barometers.
Wind direction	: Given in 16 point scale of the compass bearing.
Wind velocity	: Given in Beaufort Scale.
Cloud type	: Recorded in ten types of the cloud.
Cloud Cover	: Expressed in tenths of the whole sky covered.
Weather	: Recorded in present weather. the abbreviations and the cloud cover are as follows; B: 0~2, BC: 3~7, C: 8~10 Rain:R, Fog: F, etc.

제 1 편

연안정지 해양관측성적

PART 1

COASTAL OCEANOGRAPHIC OBSERVATIONS

1966

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연안정지 해양관측점 위치도……11

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122°
124°
126°
128°
130°
132°
42°
40°
38°
36°
34°
32°
KOREA
JAPAN
① 주문진
② 울릉도
③ 죽변
④ 포항
⑤ 장기압
⑥ 울기
⑦ 부산
⑧ 가덕도
⑨ 여수
⑩ 소리도
⑪ 거문도
⑫ 상지
⑬ 서귀포
⑭ 자지도
⑮ 마라도
⑯ 죽도
⑰ 흑산도
⑱ 홀도
⑲ 목포
⑳ 군산
㉑ 어청도
㉒ 격열비도
㉓ 부도

연안정지 해양관측점 위치표

Position of the Shore station

해역 Region	번호 No.	관측지명 Name of the Station	위치 Position 북위 Lat. (N)	위치 Position 동경 Long(E)	관측회수 Frequency of Observation	관측개시년월 Date of Inauguration
동해안 East Coast	①	주문진 Chumunjin	37°53′15″	128°50′00″	매일 Daily*	1952. 8
	②	울릉도 Ulneung-Do	37°29′00″	130°54′35″	매일 Daily*	1931.11
	③	축변 Chukbyonman	37°03′28″	129°26′00″	매일 Daily*	1916. 7
	④	포항 Pohang	36°02′56″	129°26′10″	매일 Daily*	1946. 7
	⑤	장기갑 Changgigap	36°04′35″	129°34′30″	매일 Daily*	1916. 7
	⑥	울기 Ulgi	35°29′28″	129°26′50″	매일 Daily*	1939. 1
남해안 South Coast	⑦	부산 Pusan	35°05′08″	129°02′07″	매일 Daily*	1925. 3
	⑧	가덕도 Kadok-Do	34°59′20″	128°49′50″	매일 Daily*	1930. 1
	⑨	여수 Yosu	34°44′00″	128°44′00″	매일 Daily*	1921. 1
	⑩	소리도 Sori-Do	34°24′15″	127°48′15″	매일 Daily*	1928. 4
	⑪	거문도 Komun-Do	34°00′30″	127°19′15″	매일 Daily*	1916. 7
	⑫	자지도 Chaji-Do	34°05′20″	126°36′15″	매일 Daily*	1928. 4
	⑬	산지 Sanji	33°31′10″	126°33′00″	매일 Daily*	1923.10
	⑭	서귀포 Sogwipo	33°13′30″	126°34′45″	매일 Daily*	1963. 1
서해안 West Cost	⑮	마라도 Mara-Do	33°06′45″	126°06′45″	매일 Daily*	1923.10
	⑯	죽도 Chuk-Do	34°13′30″	125°51′00″	매일 Daily*	1916. 7
	⑰	흑산도 Huksan-Do	34°05′30″	125°06′15″	매일 Daily*	1925.10
	⑱	홍도 Hong-Do	34°42′30″	125°13′00″	매일 Daily*	1933. 1
	⑲	목포 Mokpo	34°46′40″	126°23′05″	매일 Daily*	1928. 8
	⑳	군산 Kunsan	35°59′15″	126°43′00″	매일 Daily*	1939. 4
	㉑	어청도 Ochong-Do	36°06′40″	125°59′15″	매일 Daily*	1916. 7
	㉒	격열비도 Kyognyolbi-Do	36°37′15″	125°33′20″	매일 Daily*	1916. 7
	㉓	부도 Pu-Do	37°08′40″	126°21′00″	매일 Daily*	1926. 1

*매일 오전 10시 관측
At 10 a.m. every station

연안정지 월별 표면수온

Surface Water Temperature at the Shore Stations.

월 Month	관측지명 Station / 순 Ten day	① 주문진 Chumun-jin	② 울릉도 Ulneung-Do	③ 죽변 Chuk-byon	④ 포항 Pohang	⑤ 장기갑 Changgigap	⑥ 울기 Ulgi	⑦ 부산 Pusan
1 월 Jan.	상 순 1st	5.99	12.25	10.71	8.57	9.85	14.06	12.20
	중 순 2nd	4.96	12.17	9.27	7.02	10.69	11.40	10.33
	하 순 3rd	2.79	12.12	8.94	5.58	10.13	12.37	10.36
	월평균 Mean	**4.58**	**12.18**	**9.32**	**7.06**	**10.22**	**12.61**	**10.13**
2 월 Feb.	상 순 1st	5.78	12.77	8.34	7.40	10.45	11.64	11.03
	중 순 2nd	7.00	13.62	7.90	7.95	11.35	12.09	11.17
	하 순 3rd	7.09	14.22	8.38	8.05	11.44	12.01	11.08
	월평균 Mean	**6.62**	**13.54**	**8.21**	**7.80**	**11.08**	**11.91**	**11.10**
3 월 Mar.	상 순 1st	7.55	10.34	8.94	9.78	10.38	12.20	11.89
	중 순 2nd	7.26	10.35	9.62	9.96	10.77	12.02	12.20
	하 순 3rd	7.80	11.04	10.10	9.53	10.44	11.65	12.20
	월평균 Mean	**7.54**	**10.58**	**9.55**	**9.76**	**10.53**	**11.96**	**12.13**
4 월 Apr.	상 순 1st	9.00	12.31	11.36	11.08	10.52	12.46	12.87
	중 순 2nd	8.17	12.70	9.78	12.61	12.01	13.71	13.72
	하 순 3rd	10.07	13.11	10.65	12.86	13.70	13.68	14.88
	월평균 Mean	**9.08**	**12.72**	**10.60**	**12.18**	**12.08**	**13.28**	**13.82**
5 월 May	상 순 1st	10.57	13.35	10.56	16.10	14.33	13.68	15.11
	중 순 2nd	12.57	14.20	13.87	16.88	15.35	16.21	15.16
	하 순 3rd	14.31	16.35	14.30	16.85	16.52	14.88	16.59
	월평균 Mean	**12.48**	**14.43**	**12.91**	**16.61**	**15.40**	**14.92**	**15.62**
6 월 Jun.	상 순 1st	14.88	17.50	13.37	18.94	17.85	17.50	17.39
	중 순 2nd	15.54	18.54	14.41	19.89	18.61	19.70	18.50
	하 순 3rd	17.58	19.27	15.89	18.70	19.13	18.70	18.30
	월평균 Mean	**16.00**	**18.44**	**15.56**	**19.17**	**18.53**	**18.64**	**18.06**
7 월 Jul.	상 순 1st	17.36	18.92	18.86	19.99	20.64	19.76	20.44
	중 순 2nd	20.06	19.26	19.42	20.61	20.49	18.82	21.94
	하 순 3rd	21.88	19.16	19.23	17.78	25.74	20.26	20.40
	월평균 Mean	**19.77**	**19.11**	**19.17**	**19.46**	**23.49**	**19.61**	**20.93**
8 월 Aug.	상 순 1st	21.02	22.36	18.73	23.84	25.31	22.17	21.86
	중 순 2nd	24.23	25.85	24.10	24.80	25.45	21.61	21.87
	하 순 3rd	21.24	25.49	22.70	24.95	25.35	22.81	24.45
	월평균 Mean	**22.16**	**24.57**	**21.51**	**24.53**	**25.37**	**22.20**	**22.73**
9 월 Sep.	상 순 1st	20.27	24.19	20.01	21.45	23.42	23.08	25.08
	중 순 2nd	19.24	22.13	19.50	20.76	22.07	21.72	22.88
	하 순 3rd	19.08	20.73	18.70	20.15	22.04	19.25	24.54
	월평균 Mean	**19.53**	**22.35**	**19.40**	**20.79**	**22.51**	**21.35**	**24.17**
10월 Oct.	상 순 1st	17.78	20.27	19.80	19.45	21.21	18.94	20.97
	중 순 2nd	17.46	20.08	18.59	19.65	17.62	19.91	18.83
	하 순 3rd	15.79	19.45	15.39	16.97	14.79	22.03	18.19
	월평균 Mean	**17.01**	**19.93**	**17.92**	**18.69**	**17.87**	**20.29**	**19.33**
11월 Nov.	상 순 1st	14.49	18.32	14.51	16.03	14.32	18.06	17.48
	중 순 2nd	12.88	17.33	13.81	14.55	12.77	15.51	15.78
	하 순 3rd	11.50	15.80	11.23	11.35	10.00	14.99	14.08
	월평균 Mean	**12.95**	**17.15**	**13.18**	**13.58**	**12.36**	**16.19**	**15.78**
12월 Dec.	상 순 1st	9.57	14.80	12.24	9.07	9.70	15.47	12.64
	중 순 2nd	11.29	14.30	11.06	9.98	9.80	14.18	12.86
	하 순 3rd	7.65	14.40	11.39	9.08	9.40	13.96	12.09
	월평균 Mean	**9.49**	**14.50**	**11.56**	**9.39**	**9.60**	**14.54**	**12.53**
년 Year	년 평 균 Arnual Mean	13.94	16.62	14.08	15.70	15.75	16.46	16.36

월 Month	관측지명 Station / 순 Ten day	⑧ 가덕도 Kadok-Do	⑨ 여수 Yosu	⑩ 소리도 Sori-Do	⑪ 거문도 Komun-Do	⑫ 자지도 Chaji-Do	⑬ 산지 Sanji	⑭ 서귀포 Sogwipo
1 월 Jan.	상 순 1st	11.94	6.77	10.97	13.61	10.28	13.72	15.34
	중 순 2nd	11.87	6.64	10.79	14.01	9.75	14.34	15.22
	하 순 3rd	11.79	5.20	9.97	12.62	8.13	14.10	14.50
	월평균 Mean	**11.87**	**6.20**	**10.58**	**13.41**	**9.39**	**14.05**	**15.02**
2 월 Feb.	상 순 1st	11.82	5.33	9.08	13.03	7.74	14.07	14.70
	중 순 2nd	12.30	6.04	8.18	13.25	8.95	14.27	14.38
	하 순 3rd	12.61	9.68	10.33	13.34	10.50	13.38	14.48
	월평균 Mean	**12.24**	**6.12**	**9.44**	**13.21**	**9.06**	**13.91**	**14.52**
3 월 Mar.	상 순 1st	12.69	8.38	10.83	13.32	11.33	13.89	16.61
	중 순 2nd	12.47	9.62	12.40	13.29	11.56	14.62	17.15
	하 순 3rd	12.40	10.44	12.33	12.78	12.84	14.02	19.86
	월평균 Mean	**12.52**	**9.46**	**11.85**	**13.13**	**11.91**	**13.55**	**17.87**
4 월 Apr.	상 순 1st	12.70	11.47	12.13	13.32	11.93	15.02	15.23
	중 순 2nd	12.73	12.76	12.52	14.14	13.30	14.47	19.29
	하 순 3rd	12.70	14.55	13.45	14.71	13.46	15.06	17.85
	월평균 Mean	**12.71**	**12.92**	**12.70**	**13.99**	**12.90**	**14.85**	**17.49**
5 월 May	상 순 1st	12.75	15.57	14.34	14.03	13.99	15.03	15.15
	중 순 2nd	14.10	12.27	15.90	14.88	14.64	16.59	16.44
	하 순 3rd	13.54	18.55	16.54	15.40	16.60	14.49	17.78
	월평균 Mean	**13.46**	**17.19**	**15.59**	**14.77**	**15.07**	**16.47**	**16.58**
6 월 Jun.	상 순 1st	13.60	19.97	17.90	15.86	16.10	16.70	18.10
	중 순 2nd	13.60	21.36	18.62	18.31	16.40	17.70	19.70
	하 순 3rd	13.50	22.41	20.05	17.82	17.04	18.80	19.74
	월평균 Mean	**13.60**	**21.25**	**18.86**	**17.33**	**16.63**	**18.06**	**19.18**
7 월 Jul.	상 순 1st	14.43	22.10	20.09	19.88	18.57	20.05	20.25
	중 순 2nd	15.26	23.34	21.92	20.66	18.14	22.69	21.14
	하 순 3rd	16.90	24.90	21.45	22.27	22.27	24.71	24.14
	월평균 Mean	**15.53**	**23.45**	**21.15**	**20.94**	**19.66**	**22.48**	**21.84**
8 월 Aug.	상 순 1st	20.47	24.35	24.21	24.38	20.57	27.64	25.06
	중 순 2nd	21.14	25.47	24.62	25.41	20.19	28.07	25.27
	하 순 3rd	21.23	25.65	24.80	25.16	22.38	23.72	27.62
	월평균 Mean	**20.95**	**25.16**	**24.54**	**24.98**	**21.0$_5$**	**26.48**	**25.98**
9 월 Sep.	상 순 1st	20.22	26.04	25.39	23.94	21.20	24.60	26.40
	중 순 2nd	19.61	24.85	24.76	23.72	20.91	24.18	25.60
	하 순 3rd	19.13	22.85	22.96	22.00	21.71	22.30	24.70
	월평균 Mean	**19.65**	**24.58**	**24.37**	**23.22**	**21.27**	**23.69**	**25.60**
10월 Oct.	상 순 1st	19.07	21.82	21.84	21.90	20.82	22.53	22.83
	중 순 2nd	18.47	21.26	20.99	20.98	21.19	20.91	21.99
	하 순 3rd	18.33	19.41	18.84	18.04	19.72	20.64	20.54
	월평균 Mean	**18.62**	**19.83**	**20.56**	**20.31**	**20.58**	**21.36**	**21.79**
11월 Nov.	상 순 1st	18.29	17.90	16.04	18.38	16.84	22.50	19.90
	중 순 2nd	17.38	15.95	16.00	17.32	15.80	20.90	20.20
	하 순 3rd	16.10	13.10	15.24	15.16	15.10	20.60	19.10
	월평균 Mean	**17.26**	**15.65**	**15.76**	**16.95**	**15.51**	**21.33**	**19.70**
12월 Dec.	상 순 1st	15.09	10.60	13.10	15.16	14.70	15.60	16.20
	중 순 2nd	14.18	9.30	12.15	15.04	11.80	14.02	17.90
	하 순 3rd	16.70	8.60	11.86	13.90	10.00	15.30	16.50
	월평균 Mean	**15.32**	**9.49**	**12.36**	**14.22**	**12.16**	**15.27**	**16.86**
년 Year	년 평 균 Annual Mean	15.31	15.95	16.74	16.82	15.43	18.15	22.62

⑮ 마라도 Mara-Do	⑯ 죽도 Chuk-Do	⑰ 흑산도 Huksan-Do	⑱ 홍도 Hong-Do	⑲ 목포 Mokpo	⑳ 군산 Kunsan	㉑ 어청도 Ochung-Do	㉒ 격열비도 Kyognyolbi-Do	㉓ 부도 Pu-Do
15.96	11.28	11.27	9.71	5.32	1.33	1.14	6.77	4.60
15.57	11.28	10.91	8.56	5.54	2.00	3.65	5.74	3.70
14.53	9.64	10.03	7.68	4.07	0.27	2.79	4.71	2.53
15.35	**10.73**	**10.74**	**8.62**	**4.98**	**1.20**	**2.53**	**5.55**	**3.61**
14.31	9.72	9.74	7.31	4.46	2.41	1.18	3.10	1.61
14.18	7.88	9.15	6.56	5.01	2.77	2.49	2.95	1.50
14.21	7.96	8.85	8.13	5.50	3.98	2.81	3.61	1.71
14.23	**8.52**	**9.25**	**7.33**	**4.99**	**3.05**	**2.16**	**3.22**	**1.61**
14.5_9	8.88	9.63	6.35	6.99	6.29	3.00	3.63	2.31
14.7_0	9.70	10.14	6.57	8.38	7.18	2.90	5.66	2.99
14.1_9	9.22	10.57	6.74	8.16	7.65	1.05	4.76	3.66
14.49	**9.27**	**10.11**	**6.55**	**7.84**	**7.04**	**2.32**	**4.63**	**2.99**
14.26	9.70	10.63	7.42	9.34	9.97	3.25	5.10	4.98
14.72	12.00	10.65	8.12	11.25	11.56	4.47	5.83	6.22
14.87	12.54	11.08	8.58	13.42	14.18	5.47	7.17	7.32
14.62	**11.08**	**10.79**	**8.06**	**11.34**	**11.90**	**4.39**	**6.03**	**6.17**
15.52	12.71	9.12	10.45	14.82	20.37	11.10	7.59	9.5
16.91	13.34	12.03	10.99	16.80	18.54	10.50	9.12	11.2
17.25	12.15	13.62	11.39	17.55	19.28	8.73	10.62	13.9
16.66	**12.71**	**11.59**	**10.97**	**16.39**	**17.87**	**10.11**	**9.11**	**11.52**
17.63	14.05	15.50	12.26	19.20	21.18	14.05	12.77	13.60
19.14	16.05	17.21	16.13	20.27	22.34	15.57	16.83	15.05
20.78	16.86	18.20	18.27	21.61	23.94	15.64	18.37	16.40
19.18	**16.56**	**16.97**	**15.54**	**20.36**	**22.48**	**15.09**	**15.99**	**14.89**
20.61	17.60	19.71	19.54	21.95	23.58	15.45	19.40	17.60
22.42	18.06	21.70	19.73	23.21	25.43	17.61	19.97	18.82
25.99	18.78	22.33	22.31	24.77	26.15	23.63	24.51	20.43
23.01	**18.15**	**21.25**	**20.52**	**23.31**	**25.05**	**19.00**	**20.60**	**18.95**
27.97	19.66	26.54	26.51	26.35	28.82	22.71	24.67	22.20
29.32	19.38	27.47	27.16	27.01	28.62	22.71	24.75	24.34
27.30	19.89	26.02	24.48	25.28	26.64	23.74	26.63	24.70
28.16	**19.64**	**26.68**	**26.05**	**26.21**	**28.03**	**23.05**	**24.50**	**23.75**
26.13	18.67	22.84	25.04	25.35	25.48	22.23	22.43	24.07
25.44	17.25	22.86	23.95	23.57	23.43	21.18	21.75	22.82
25.11	17.24	22.90	19.60	22.13	20.73	19.96	15.43	21.63
25.56	**$17.^{7}2$**	**22.87**	**22.86**	**23.68**	**23.21**	**21.12**	**19.87**	**22.84**
23.37	17.93	18.74	19.21	21.90	20.50	19.24	17.55	20.85
21.96	16.78	18.13	17.17	21.10	19.69	18.77	16.16	19.36
21.10	15.04	17.83	17.33	18.58	15.84	18.35	16.90	18.27
22.14	**16.58**	**18.23**	**17.91**	**20.74**	**18.68**	**18.79**	**16.87**	**19.50**
21.05	14.50	17.56	15.80	17.00	13.99	17.70	14.98	17.19
18.00	13.80	16.04	14.30	15.21	12.00	16.30	14.29	15.20
18.22	13.10	14.57	12.30	12.43	7.52	14.10	11.43	12.90
19.90	**13.80**	**16.60**	**14.10**	**14.88**	**11.17**	**16.03**	**13.67**	**15.09**
17.94	12.40	13.20	11.21	10.50	5.17	12.03	10.77	10.19
17.14	11.90	12.40	10.55	8.62	3.69	11.62	10.28	8.05
16.18	12.20	11.50	10.39	7.49	1.89	10.65	9.46	6.54
17.09	**12.17**	**12.37**	**10.72**	**8.87**	**3.58**	**11.43**	**9.84**	**8.26**
19.20	**13.91**	**23.49**	**14.10**	**15.30**	**14.14**	**12.11**	**12.17**	**12.43**

제 2 편

C. S. K.

(黑潮國際合同調査)

해양 관측 성적

(수온. 염분. 산소. 인삼염. 질산염. 규산염 pH. 밀도. 및 기상요소)

◇

PART 2

SECTIONAL OCEANOGRAPHIC OBSERVATIONS

(Temperature. Salinity. O_2. PO_4-P. NO_2-N. SiO_2-Si. pH. and Meteorological Data)

1966

차 례

횡단 정신 해양 관측점 위치도 21
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C. 104선 해양 관측 성적 54
D. 103선 해양 관측 성적 74
E. 102선 해양 관측 성적 86
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B. 208선 해양 관측 성적 111
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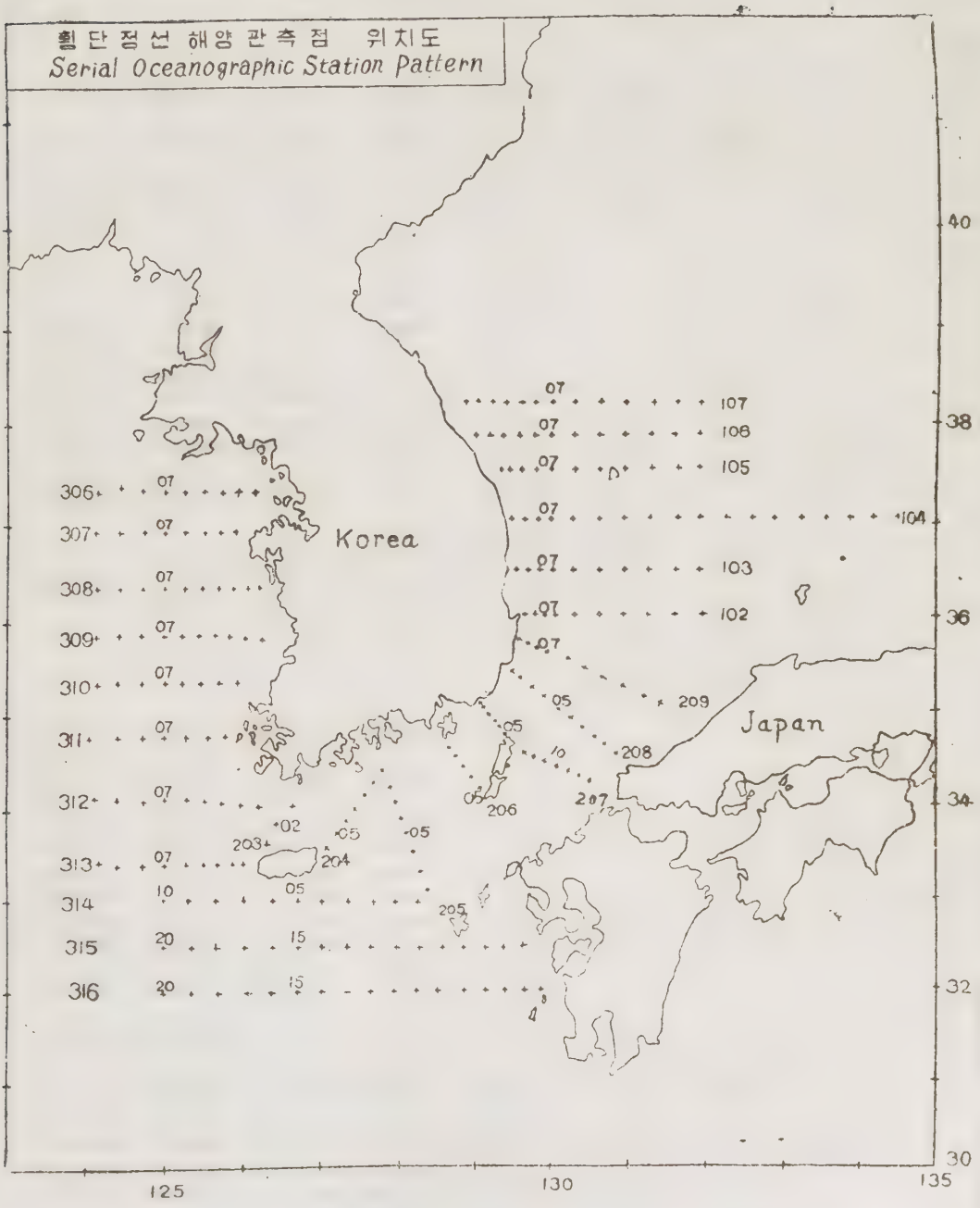
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횡단정선 해양관측점 위치표

Position of the Serial Oceanographic Stations

St No. / Line	01	02	03	04	05	06	07	08
	38°12′6″	38°12′6″	38°12′6″	38°12′6″	38°12′6″	38°12′6″	38°12′6″	38°12′6″
107	128°37′4″	128°42′7″	128°50′6″	128°03′5″	129°22′3″	129°41′1″	130°00′0″	130°18′9″
		37°53′7″	37°53′7″	37°53′7″	37°53′7″	37°53′7″	37°53′7″	37°53′7″
106		128°52′5″	128°57′2″	129°03′8″	129°22′1″	129°41′3″	130°00′0″	130°18′9″
			37°33′2″	37°33′2″	37°33′2″	37°33′2″	37°33′2″	37°33′2″
105			129°10′3″	129°15′5″	129°22′6″	129°41′3″	130°00′0″	130°18′7″
				37°03′4″	37°03′4″	37°03′4″	37°03′4″	37°03′4″
104				129°28′8″	129°33′6″	129°47′6″	130°00′0″	130°18′7″
				36°30′3″	36°30′3″	36°30′3″	36°30′3″	36°30′3″
103				129°30′1″	129°35′4″	129°47′3″	130°00′0″	130°18′6″
				36°04′6″	36°04′6″	36°04′6″	36°04′6″	36°04′6″
102				129°36′9″	129°41′3″	129°42′8″	130°00′0″	130°18′4″
				35°47′3″	35°45′4″	35°41′3″	35°36′8″	35°30′8″
209				129°32′8″	129°38′4″	129°49′0″	130°00′3″	130°16′9″
	35°28′5″	35°24′3″	35°17′8″	35°11′1″	35°04′8″	34°58′2″	34°52′0″	34°45′3″
208	129°27′3″	129°33′8″	129°42′9″	129°52′7″	130°02′0″	130°11′9″	130°20′9″	130°30′6″
	35°01′3″	34°57′6″	34°53′9″	34°50′2″	34°48′0″	34°44′4″	34°38′6″	34°33′6″
207	129°07′2″	129°11′2″	129°15′4″	129°19′5″	129°21′8″	129°25′8″	129°37′3″	129°47′9″
	34°35′5″	34°29′6″	34°22′4″	34°15′3″	34°08′1″			
206	128°34′5″	128°41′2″	128°49′7″	128°58′0″	129°06′3″			
	34°22′3″	34°15′0″	34°05′5″	33°51′5″	33°37′3″	33°23′8″	33°09′7″	32°55′9″
205	127°48′5″	127°52′1″	127°56′9″	128°03′0″	128°09′2″	128°14′3″	127°21′3″	127°27′0″
	34°20′8″	34°13′7″	34°06′7″	33°54′1″	33°45′5″	33°35′8″		
204	127°43′9″	127°35′4″	127°26′8″	127°15′2″	127°09′2″	127°03′2″		
	33°56′6″	33°47′5″	33°38′3″					
203	126°31′4″	126°26′3″	126°21′3″					
				32°00′0″	32°00′0″	32°00′0″	32°00′0″	32°00′0″
316				129°41′3″	129°24′1″	129°07′0″	128°49′2″	128°32′0″
					32°30′0″	32°30′0″	32°30′0″	32°30′0″
315					129°28′0″	129°10′9″	128°53′1″	128°35′6″
	33°00′0″	33°00′0″	33°00′0″	33°00′0″	33°00′0″	33°00′0″	33°00′0″	33°00′0″
314	127°42′0″	127°24′0″	127°06′0″	126°48′0″	126°30′0″	126°12′0″	125°54′0″	125°36′0″
		33°24′4″	33°24′4″	33°24′4″	33°24′4″	33°24′4″	33°24′4″	33°24′4″
313		126°00′0″	125°48′0″	125°36′0″	125°24′0″	125°12′0″	125°00′0″	124°48′0″
		33°58′5″	33°59′8″	34°01′3″	34°02′6″	34°04′1″	34°05′5″	34°05′5″
312		126°06′0″	125°54′0″	125°42′0″	125°30′0″	125°18′0″	125°00′0″	124°48′0″
				34°43′0″	34°43′0″	34°43′0″	34°43′0″	34°43′0″
311				125°43′9″	125°31′9″	125°19′4″	125°00′0″	124°47′9″
			35°20′0″	35°20′1″	35°20′1″	35°20′1″	35°20′1″	35°20′1″
310			125°49′3″	125°36′5″	125°24′4″	125°12′1″	125°00′0″	124°47′9″
	35°51′3″	35°51′3″	35°51′3″	35°51′3″	35°51′3″	35°51′3″	35°51′3″	35°51′3″
309	126°14′7″	126°02′0″	125°49′3″	125°37′0″	125°24′4″	125°12′3″	125°00′0″	124°47′8″
	36°19′8″	36°19′8″	36°19′8″	36°19′8″	36°19′8″	36°19′8″	36°19′8″	36°19′8″
308	126°14′4″	126°02′3″	125°50′0″	125°37′0″	125°25′3″	125°12′4″	125°00′0″	124°47′5″
			36°56′5″	36°55′5″	36°55′5″	36°55′5″	36°55′5″	36°55′5″
307			126°00′0″	125°37′7″	125°25′0″	125°12′5″	125°00′0″	124°47′5″
		37°16′9″	37°16′9″	37°16′9″	37°16′9″	37°16′9″	37°16′9″	37°16′9″
306		126°03′1″	125°50′3″	125°37′8″	125°25′2″	125°12′7″	125°00′0″	124°47′4″

St No. / Line	09	10	11	12	13	14	15	16
107	38°12′6″ 130°37′9″	38°12′6″ 130°56′6″	38°12′6″ 131°15′2″	38°12′6″ 131°34′1″	38°12′6″ 131°53′6″	38°12′6″ 132°12′6″	38°12′6″ 132°31′3″	
106	37°53′7″ 130°37′7″	37°53′7″ 130°56′5″	37°53′7″ 131°15′1″	37°53′7″ 131°34′7″	37°53′7″ 131°53′0″	37°53′7″ 132°12′2″	37°53′7″ 132°30′9″	
105	37°33′2″ 130°37′5″	37°33′2″ 130°55′9″	37°33′2″ 131°14′6″	37°33′2″ 131°33′8″	37°33′2″ 131°52′2″	37°33′2″ 132°11′2″	37°33′2″ 132°29′8″	
104	37°03′4″ 130°37′6″	37°03′4″ 130°56′4″	37°03′4″ 131°15′3″	37°03′4″ 131°33′8″	37°03′4″ 131°52′6″	37°03′4″ 132°11′6″	37°03′4″ 132°29′5″	37°03′4″ 132°47′6″
103	36°30′3″ 130°37′3″	36°30′3″ 130°55′6″	36°30′3″ 131°14′0″	36°30′3″ 131°33′1″	36°30′3″ 131°51′2″	36°30′3″ 131°10′1″	36°30′3″ 132°28′5″	
102	36°04′6″ 130°36′9″	36°04′6″ 130°55′1″	36°04′6″ 131°13′6″	36°04′6″ 131°32′3″	36°04′6″ 131°50′6″	36°04′6″ 132°09′0″	36°04′6″ 132°27′3″	
209	35°24′4″ 130°33′5″	35°17′8″ 130°50′0″	35°11′4″ 131°06′6″	35°05′3″ 131°22′6″	34°58′9″ 131°39′1″			
208	34°38′9″ 130°40′5″	34°32′5″ 130°49′8″						
207	34°28′6″ 129°58′4″	34°23′7″ 130°08′7″	34°18′6″ 130°19′3″	34°13′8″ 130°29′7″	34°09′0″ 130°40′3″			
306	37°16′9″ 124°34′8″	37°16′9″ 124°22′3″						
307	36°55′5″ 124°34′8″	36°55′5″ 124°22′3″						
308	36°19′8″ 124°35′1″	36°19′8″ 124°23′0″						
309	35°51′3″ 124°35′1″	35°51′3″ 124°22′8″						
310	35°20′1″ 124°35′6″	35°20′1″ 124°23′5″						
311	34°43′0″ 124°35′8″	34°43′0″ 124°23′4″						
312	34°05′5″ 123°36′0″	34°05′5″ 124°24′0″						
313	33°24′4″ 124°36′0″	33°24′4″ 124°24′0″						
314	33°00′0″ 120°18′0″	33°00′0″ 125°00′0″	33°00′0″ 124°42′0″	33°00′0″ 124°24′0″				
315	32°30′0″ 128°17′6″	32°30′0″ 127°59′8″	32°30′0″ 127°41′8″	32°30′0″ 127°23′4″	32°30′0″ 127°05′8″	32°30′0″ 126°48′0″	32°30′0″ 126°30′2″	32°30′0″ 126°12′0″
316	32°00′0″ 128°14′5″	32°00′0″ 127°57′0″	32°00′0″ 127°39′1″	32°00′0″ 127°22′1″	32°00′0″ 127°04′3″	32°00′0″ 126°46′7″	32°00′0″ 126°29′0″	32°00′0″ 126°11′1″

Line \ St No.	17	18	19	20	21	22		
104	37°03′4″ 133°06′1″	37°03′4″ 133°24′7″	37°03′4″ 133°43′1″	37°03′4″ 134°01′7″	37°03′4″ 134°20′4″			
315	32°30′0″ 125°53′6″	32°30′0″ 125°35′9″	32°30′0″ 125°17′9″	32°30′0″ 125°00′0″	32°30′0″ 124°42′2″	32°30′0″ 124°24′3″		
316	32°00′0″ 125°53′3″	32°00′0″ 125°35′8″	32°00′0″ 125°17′8″	32°00′0″ 125°00′0″	32°00′0″ 124°31′8″	32°00′0″ 124°23′8″		

동 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS EASTERN WATERS

1966

106선 해 양 관 측 성 적

Oceanographic Data, Line 106

4월(April) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	05	1322	420	4	11	E 2	E 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	7	1019.5	11.3	9.2	Ci	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	No_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σ_t g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	$\triangle$Dm dyn.
0	10.65	34.53	7.06	0.52	—	5	8.12	0	10.65	34.53	7.06	26.49	154	0.000
10	10.42	34.36	7.02	0.49	—	5	8.22	10	10.42	34.36	7.02	26.40	163	0.016
20	9.62	34.32	6.96	0.81	—	6	8.30	20	9.62	34.32	6.96	26.51	154	0.032
30	6.73	34.19	6.98	1.02	—	8	8.30	30	6.73	34.19	6.98	26.84	122	0.046
50	3.79	34.10	6.98	1.53	—	8	8.10	50	3.79	34.10	6.98	27.11	96	0.068
75	1.86	34.07	6.79	2.47	—	12	8.03	75	1.86	34.07	6.79	27.26	82	0.090
100	1.35	34.06	6.78	1.77	—	9	7.98	100	1.35	34.06	6.78	27.29	79	0.110
125	1.19	34.07	6.75	1.18	—	9	7.93	125	1.19	34.07	6.75	27.31	77	0 130
150	0.99	34.08	6.51	2.52	—	10	7.90	150	0.99	34.08	6.51	27.33	75	0.149
200	0.78	34.08	6.22	1.41	—	11	7.99	200	0.78	34.08	6.22	27.34	74	0.186
250	0.65	34.09	5.97	1.56	—	14	7.91	250	0.65	34.09	5.97	27.36	72	0.223
300	0.55	34.09	5.69	1.58	—	14	7.90	300	0.55	34.09	5.69	27.36	72	0.260
420	0.36	34.10	5.61	1.18	—	14	8.40	400	0.38	34.09	5.57	27.38	70	0.331

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	06	0950	1080	4	09	N 1	N 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	8	1020.5	10.6	8.9	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn·m
0	10.83	34.39	6.82	0.65	—	8	8.10	0	10.83	34.39	6.82	26.35	168	0.000
10	10.63	34.40	6.85	0.80	—	8	8.12	10	10.63	34.40	6.85	26.39	164	0.017
20	7.64	34.27	6.58	1.28	—	6	8.15	20	7.64	34.27	6.58	26.77	128	0.031
30	5.75	34.21	6.79	1.14	—	8	8.12	30	5.75	34.21	6.79	26.98	108	0.043
50	2.72	34.09	6.66	0.75	—	10	8.04	50	2.72	34.09	6.66	27.21	87	0.063
75	1.42	34.08	6.45	1.25	—	10	8.02	75	1.42	34.08	6.45	27.30	78	0 083
100	1.02	34.09	6.30	1.57	—	12	8.00	100	1.02	34.09	6.30	27.33	75	0.103
125	0.86	34.08	6.23	1.65	—	11	7.95	125	0.86	34.08	6.23	27.34	74	0.121
150	0.78	34.08	6.16	1.87	—	11	7.90	150	0.78	34.08	6.16	27.34	74	0.140
200	0.60	34.09	6.12	1.98	—	10	7.90	200	0.60	34.09	6.12	27.36	72	0.177
250	0.49	34.09	5.81	1.20	—	10	7.88	250	0.49	34.09	5.81	27.37	71	0.213
300	0.43	34.10	5.71	0.91	—	13	7.82	300	0.43	34.10	5.71	27.38	70	0.249
400	0.30	34.10	5.66	1.03	—	13	7.80	400	0.30	34.10	5.66	27.39	69	0.319
500	0.24	34.10	5.64	1.40	—	13	7.66	500	0.24	34.10	5.64	27.39	69	0.389
								600	0.19	34.10	5.58	27.39	68	0.458
								700	0.16	34.10	5.49	27.40	68	0.527
								800	0.14	34.10	5.36	27.40	67	0.595
1000	0.15	34.12	4.98	2.09	—	—	—	1000	0.15	34.12	4.98	27.41	66	0.730

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	06	1610	1060	5	10	NE 3	NE 2

Wind		ro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	11	1016.5	11.0	10.1	AlSt	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.60	34.43	6.47	0.45	—	4	8.21	0	10.60	34.43	6.47	26.42	161	0.000
10	10.63	34.44	6.45	0.32	—	5	8.20	10	10.63	34.44	6.45	26.43	161	0.016
20	10.54	34.43	6.43	0.61	—	5	8.28	20	10.54	34.43	6.43	26.43	160	0.032
30	10.48	34.43	6.43	0.44	—	5	8.28	30	10.48	34.43	6.43	26.44	160	0.048
50	10.12	34.40	6.25	0.41	—	5	8.22	50	10.12	34.40	6.25	26.48	156	0.080
75	9.80	34.38	6.23	0.70	—	6	8.24	75	9.80	34.38	6.23	26.52	153	0.119
100	9.51	34.35	6.15	0.70	—	7	8.24	100	9.51	34.35	6.15	26.55	151	0.157
125	9.41	34.60	6.02	1.05	—	7	8.22	125	9.41	34.38	6.02	26.59	148	0.194
150	9.09	34.40	6.02	1.17	—	7	8.22	150	9.09	34.40	6.02	26.65	142	0.231
200	7.05	34.18	6.00	0.91	—	8	8.22	200	7.05	34.18	6.00	26.79	129	0.299
250	4.05	34.03	5.98	0.72	—	9	8.22	250	4.05	34.03	5.98	27.03	105	0.358
300	1.89	—	5.97	0.77	—	11	8.17	300	1.89	—	5.97	—	—	—
400	1.21	—	5.94	1.55	—	11	8.05	400	1.21	—	5.94	—	—	—
500	0.83	—	5.91	2.05	—	12	8.00	500	0.83	—	5.91	—	—	—
								600	0.53		5.83			
								700	0.32		5.69			
								800	0.19		5.49			
1000	0.20	33.10	4.94	2.07	—	15	7.94	1000	0.20		4.94			

St. No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	6	20.35	2250			NE 3	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Dirction	Force		Dry	Wet	Type	Amount	
S	8	1015.7	11.1	10.7	AlSt	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.92	34.44	6.44	—	—	5	7.20	0	10.92	34.44	6.44	26.37	166	0.000
10	10.94	34.43	6.44	1.12	—	5	8.26	10	10.94	34.43	6.44	26.36	167	0.017
20	10.74	34.44	6.35	0.77	—	5	8.28	20	10.74	34.44	6.35	26.41	163	0.033
30	10.43	34.43	6.35	0.94	—	5	8.28	30	10.43	34.43	6.35	26.45	159	0.049
50	9.81	34.37	6.19	0.49	—	6	8.28	50	9.81	34.37	6.19	26.51	153	0.081
75	9.59	34.34	6.13	1.66	—	6	8.28	75	9.59	34.34	6.13	26.53	153	0.119
100	8.34	34.28	6.00	0.59	—	6	8.28	100	8.34	34.28	6.00	26.68	139	0.156
125	4.77	34.11	6.04	0.57	—	7	8.22	125	4.77	34.11	6.04	27.02	106	0.186
150	3.28	34.05	5.77	1.41	—	7	8.26	150	3.28	34.05	5.77	27.12	95	0.212
200	2.09	34.03	5.63	1.01	—	8	8.20	200	2.09	34.03	5.63	27.21	87	0.257
250	1.53	34.04	5.60	0.56	—	8	8.19	250	1.53	34.04	5.60	27.26	82	0.300
300	1.09	34.05	5.42	0.61	—	9	8.08	300	1.09	34.05	5.42	27.30	78	0.340
400	0.75	34.08	5.40	1.14	—	10	8.02	400	0.75	34.08	5.40	27.34	74	0.417
500	0.52	34.08	5.32	1.38	—	12	7.98	500	0.52	34.08	5.32	27.36	72	0.491
								600	0.34	34.08	5.24	27.37	71	0.563
								700	0.21	34.08	5.15	27.38	70	0.634
								800	0.14	34.09	5.06	27.39	69	0.703
1000	0.16	34.11	4.88	1.92	—	16	7.96	1000	0.16	34.11	4.88	27.40	67	0.840

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	7	0130	960			SE 2	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	7	1013.2	8.2	7.4	[AlSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.93	34.18	6.93	0.88	—	6	8.18	0	6.93	34.18	6.93	26.80	125	0.000
10	6.84	34.20	6.87	0.98	—	8	8.18	10	6.84	34.20	6.87	26.83	122	0.012
20	6.45	34.18	6.69	0.63	—	6	8.20	20	6.45	34.18	6.69	26.87	119	0.025
30	5.86	34.16	6.87	0.84	—	6	8.20	30	5.86	34.16	6.87	26.93	113	0.036
50	4.81	34.11	6.89	0.76	—	6	8.20	50	4.81	34.11	6.89	27.01	105	0.058
75	2.95	34.04	6.13	0.77	—	8	8.19	75	2.95	34.04	6.13	27.15	93	0.083
100	2.22	34.03	6.77	0.72	—	8	8.06	100	2.22	34.03	6.77	27.20	88	0.106
125	1.80	34.03	6.93	0.75	—	8	8.00	125	1.80	34.03	6.93	27.23	85	0.127
150	1.35	34.04	6.23	0.60	—	8	8.00	150	1.35	34.04	6.23	27.27	81	0.148
200	1.00	34.05	5.66	1.76	—	9	7.99	200	1.00	34.05	5.66	27.30	78	0.188
250	0.82	24.07	6.00	1.32	—	10	7.90	250	0.82	34.07	6.00	19.32	76	0.417
300	0.70	34.08	5.79	0.98	—	10	7.86	300	0.70	34.08	5.79	27.35	73	0.645
400	0.50	34.08	5.58	0.78	—	12	7.83	400	0.50	34.08	5.58	27.36	72	0.718
500	0.35	34.09	5.22	1.02	—	13	7.82	500	0.35	34.09	5.22	27.37	70	0.790
								600	0.23	34.09	4.96	27.39	69	0.860
								700	0.15	34.10	4.81	27.39	68	0.929
								800	0.10	34.10	4.76	27.40	67	0.997
1000	0.11	34.10	4.96	1.09	—	2	7.75	1000	0.11	34.10	4.96	27.40	68	1.133

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	7	0601	1630			SW 3	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	8	1015.0	7.6	6.2	Ci	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	8.17	34.26	6.87	0.51	—	4	8.18	0	8.17	34.26	6.87	26.69	136	0.000
10	8.18	34.28	6.77	0.61	—	4	8.20	10	8.18	34.28	6.77	26.70	135	0.014
20	8.09	34.27	6.75	0.64	—	4	8.20	20	8.09	34.27	6.75	26.71	134	0.027
30	8.04	34.28	6.75	0.67	—	4	8.20	30	8.04	34.28	6.75	26.72	133	0.040
50	7.52	34.24	6.48	0.41	—	5	8.20	50	7.52	34.24	6.48	26.77	129	0.067
75	5.75	34.16	6.15	0.52	—	5	8.02	75	5.75	34.16	6.15	26.94	113	0.097
100	4.95	34.11	6.54	0.45	—	7	8.02	100	4.95	34.11	6.54	27.00	107	0.125
125	3.11	34.07	6.23	0.45	—	8	8.02	125	3.11	34.07	6.23	27.16	92	0.150
150	2.25	34.05	6.02	0.45	—	9	8.00	150	2.25	34.05	6.02	27.21	87	0.172
200	1.47	34.04	5.96	0.80	—	8	7.95	200	1.47	34.04	5.96	27.26	82	0.215
250	0.99	34.07	6.01	1.38	—	10	7.80	250	0.99	34.07	6.01	27.32	76	0.254
300	0.75	34.08	5.99	1.21	—	10	7.78	300	0.75	34.08	5.99	27.34	74	0.292
400	0.45	34.09	5.59	0.95	—	12	7.71	400	0.45	34.09	5.59	27.37	71	0.365
								500	0.40	34.09	5.16	27.37	71	0.436
								600	0.35	34.09	4.86	27.38	70	0.507
								700	0.30	34.09	4.70	27.38	70	0.578
								800	0.25	34.09	4.67	27.38	69	0.648
1000	0.15	34.10	5.00	1.41	—	16	7.78	1000	0.15	34.10	5.00	27.39	68	0.786

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	15	1230	58		14	SE 3	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	1	1004.6	22.3	21.6	StCu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	20.69	32.91	6.40	0.63	0.04	47	7.94	0	20.69	32.91	6.40	23.01	486	0.000
10	14.87	33.52	6.34	0.60	0.08	32	7.90	10	14.87	33.52	6.34	24.88	308	0.040
20	12.65	33.65	6.62	0.67	0.01	37	7.88	20	12.65	33.65	6.62	25.44	255	0.068
30	8.24	33.69	7.00	0.63	0.01	44	7.88	30	8.24	33.89	7.00	26.39	165	0.089
50	4.93	34.02	7.08	0.60	0.01	55	7.86	50	4.93	34.02	7.08	26.93	113	0.117

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	15	1443	320		14	SE1	SE1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	3	1006.8	23.3	22.9	StCu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\int dt$ cm^3/g	△D dyn. m
0	20.53	32.79	5.42	0.51	0.08	33	7.80	0	20.53	32.79	5.42	22.96	491	0.000
10	18.25	33.48	5.72	0.80	0.01	38	7.84	10	18.25	33.48	5.72	24.07	385	0.044
20	8.61	33.84	7.20	0.75	0.04	45	7.80	20	8.61	33.84	7.20	26.29	174	0.072
30	5.73	33.95	7.20	0.68	0.06	40	7.82	30	5.73	33.95	7.20	26.78	128	0.087
50	3.13	33.97	7.16	0.80	0.15	36	7.78	50	3.13	33.97	7.16	27.07	99	0.110
75	2.27	34.00	6.78	0.81	0.35	47	7.74	75	2.27	34.00	6.78	27.17	90	0.134
100	1.88	34.01	6.21	0.92	0.01	51	7.71	100	1.88	34.01	6.21	27.21	87	0.156
125	1.67	34.01	5.87	1.06	0.23	61	7.71	125	1.67	34.01	5.87	27.23	85	0.177
142	1.46	34.02	5.42	1.40	0.17	46	7.70	150	1.39	34.01	5.41	27.25	83	0.199
193	1.16	34.01	5.83	2.23	0.14	43	7.70	200	1.09	34.02	5.84	27.28	80	0.239
246	0.77	34.10	5.80	2.31	0.12	54	7.67	250	0.75	34.09	5.80	27.36	73	0.278
285	0.76	34.00	5.76	2.77	0.09	115								

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	15	1733	320		11	SE 3	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	3	1006.9	21.4	21.1	CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$10^{-5}\,dt$ cm^3/g	△D dyn. m
0	20.93	33.10	5.51	0.80	0.01	32	7.96	0	20.93	33.10	5.51	23.09	478	0.000
10	13.99	33.61	5.92	0.81	0.01	40	7.92	10	13.99	33.61	5.92	25.14	284	0.038
20	8.04	33.92	7.14	0.75	0.01	45	7.86	20	8.04	33.92	7.14	26.44	160	0.060
30	5.59	33.94	7.24	0.83	0.01	48	7.83	30	5.59	33.94	7.24	26.79	127	0.075
50	3.06	34.04	7.50	0.83	0.04	56	7.82	50	3.06	34.04	1.50	27.14	94	0.097
75	1.92	33.98	7.58	0.83	0.12	47	7.82	75	1.92	33.98	7.58	27.18	89	0.120
100	1.81	34.01	7.46	1.09	0.01	43	7.82	100	1.81	34.01	7.46	27.22	86	0.142
125	2.26	34.00	7.24	1.46	0.38	44	7.73	125	1.79	34.00	7.24	27.21	87	0.164
149	1.72	33.99	7.22	1.20	0.15	41	7.70	150	1.70	33.99	7.22	27.21	87	0.185
199	0.93	33.99	7.18	1.26	0.13	51	7.70	200	0.92	33.99	7.18	27.26	82	0.228
249	0.70	34.01	7.04	1.10	0.19	49	7.70	250	0.69	34.01	7.03	27.29	79	0.268
299	0.74	34.05	6.36	1.44	0.17	47	7.69							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	15	2124	1120			SE 3	SE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	3	1005.2	20.0	20.0	CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	17.96	33.55	6.52	0.72	0.01	53	8.03	0	17.96	33.55	6.52	24.19	373	0.000
10	17.47	33.79	6.20	0.80	0.01	45	7.90	10	16.47	33.79	6.20	24.73	322	0.035
20	15.05	34.13	6.38	0.80	0.04	51	7.91	20	15.09	34.13	6.38	25.30	268	0.064
30	14.87	34.35	6.76	0.81	0.38	77	7.86	30	14.87	34.35	6.76	25.52	248	0.090
50	11.16	34.39	6.90	0.96	0.02	34	7.88	50	11.16	34.39	6.90	26.29	175	0.133
72	9.90	34.37	6.40	0.88	—	38	7.88	75	9.92	34.36	6.33	26.51	154	0.174
97	9.12	34.31	5.96	1.05	0.01	38	7.76	100	8.89	34.29	5.95	26.60	145	0.211
121	7.14	34.16	5.92	1.12	0.01	40	7.76	125	7.01	34.15	5.92	26.77	129	0.246
146	5.64	34.12	5.82	1.20	0.04	41	7.76	150	4.52	34.08	5.70	27.02	105	0.276
162	2.17	34.00	5.43	1.17	0.01	42	7.68	—	—	—	—	—	—	—
172	1.96	34.00	—	1.26	0.01	42	7.70	—	—	—	—	—	—	—
190	1.62	34.02	5.38	1.06	0.02	42	7.70	200	1.50	34.02	5.36	27.25	83	0.323
—	—	—	—	—	—	—	—	250	1.13	34.07	5.26	27.31	77	0.363
283	1.07	34.10	5.18	1.14	0.01	34	7.66	300	1.00	34.08	—	27.33	75	0.401
354	1.60	34.03	—	1.09	0.03	52	7.65	—	—	—	—	—	—	—
424	0.88	34.07	—	1.72	0.06	85	7.66	400	0.85	3.404	—	27.31	77	0.478

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	16	0205	1060			SW3	SW2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1005.7	21.9	21.9		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.77	33.47	5.18	0.71	0.13	35	8.10	0	21.77	33.47	5.18	23.14	473	0.000
10	21.57	33.52	5.20	0.72	0.02	47	8.08	10	21.57	33.52	5.20	23.23	465	0.047
20	15.05	34.38	6.50	0.77	0.01	51	8.05	20	15.05	34.38	6.50	25.50	249	0.083
30	12.13	34.41	6.98	0.77	0.01	40	8.00	30	12.13	34.41	6.98	26.13	190	0.105
50	10.39	34.38	6.80	0.79	0.12	30	7.98	50	10.39	34.38	6.80	26.42	162	0.140
75	9.71	34.35	6.02	0.83	0.01	47	7.90	75	9.71	34.35	6.02	26.51	154	0.180
100	9.50	34.38	6.00	0.80	0.08	39	7.84	100	9.50	34.38	6.00	26.57	148	0.218
125	9.28	34.36	6.00	0.80	—	61	7.80	125	9.28	34.36	6.00	26.59	146	0.255
150	8.51	34.26	6.02	0.88	0.01	47	7.80	150	8.51	34.26	6.02	26.64	141	0.291
200	5.41	34.09	6.19	0.93	0.01	52	7.78	200	5.41	34.09	6.19	26.93	113	0.356
240	3.19	34.03	6.43	0.83	0.01	50	7.70	250	2.83	34.02	6.41	27.15	93	0.409
284	1.96	34.04	6.26	1.04	0.01	48	7.70	300	1.68	34.04	6.24	27.25	83	0.453
378	0.94	34.04	6.22	1.16	0.04	49	7.64	400	0.85	34.04	6.23	27.31	77	0.534
473	0.74	34.08	6.21	1.40	0.07	51	7.63	500	0.69	34.08	6.14	27.35	74	0.609
567	0.61	34.09	5.82	1.12	0.29	60	7.50							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	16	0545	2250			SW 5	SW2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	5	1005.3	22.0	21.9	Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	21.77	33.29	5.38	0.68	0.01	32	7.92	0	21.77	33.29	5.38	23.01	486	0.000
10	21.71	33.32	5.84	0.67	0.01	37	7.80	10	21.71	33.32	5.84	23.04	483	0.049
20	15.82	33.79	6.10	0.78	0.01	43	7.80	20	15.82	33.79	6.10	24.88	308	0.088
30	11.91	34.20	6.24	0.63	0.01	37	7.80	30	11.91	34.20	6.24	26.00	201	0.114
50	10.12	34.16	6.22	0.64	0.01	34	7.78	50	10.12	34.16	6.22	26.30	173	0.151
75	9.61	34.16	5.58	0.65	0.01	34	7.76	75	9.61	34.16	5.58	26.38	165	0.194
100	4.20	34.14	5.50	0.65	0.01	26	7.70	100	9.20	34.14	5.50	26.43	161	0.235
115	7.57	34.13	5.50	0.77	0.01	32	7.70	125	6.59	34.10	5.66	26.79	127	0.271
142	5.17	34.05	—	0.93	0.00	45	7.70	150	4.65	34.03	6.08	26.97	110	0.301
185	3.00	34.02	6.68	1.05	0.00	59	7.68	200	2.45	34.02	6.67	27.17	91	0.352
229	1.68	34.03	6.54	1.20	0.01	50	7.66	250	1.36	34.03	6.45	27.27	81	0.395
275	1.13	34.04	6.34	1.37	0.01	50	7.62	300	0.97	34.04	6.27	27.30	78	0.435
369	0.76	34.05	6.10	1.45	0.01	49	7.62	400	0.67	34.05	6.00	27.33	75	0.512
469	0.52	34.07	5.74	1.64	0.02	57	7.53	500	0.46	34.07	5.59	27.36	73	0.586
568	0.38	34.09	5.20	1.60	0.01	62	7.52							

St. No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	16	1610	960	3	10	SW 4	SW 2

Wind		B. ro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1004.9	23.1	22.2	Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	20.71	33.74	5.20	0.80	0.01	47	8.03	0	20.71	33.74	5.20	23.63	426	0.000
10	20.74	33.87	5.12	0.59	0.01	35	8.60	10	20.74	33.87	5.12	23.73	418	0.042
19	15.44	34.24	6.48	0.73	0.00	45	7.90	20	14.97	34.25	6.51	25.43	256	0.076
29	11.46	34.31	6.50	0.81	0.00	50	7.93	30	11.25	34.30	6.53	26.21	182	0.098
49	6.05	34.14	6.98	0.81	0.01	48	7.90	50	8.26	34.13	6.97	26.58	147	0.131
73	7.37	34.12	6.60	0.93	0.01	39	7.87	75	7.09	34.11	6.59	26.73	133	0.166
97	4.29	34.02	6.50	0.93	0.06	37	7.80	100	4.04	34.03	6.46	27.04	103	0.196
122	2.81	34.04	6.20	0.93	0.01	39	7.78	125	2.70	34.04	6.19	27.17	91	0.220
146	2.20	34.05	6.20	1.12	0.00	39	7.70	150	2.11	34.05	6.19	27.22	86	0.242
188	1.50	34.05	6.12	1.32	0.00	38	7.66	200	1.35	34.05	6.15	27.28	80	0.284
238	0.97	34.07	6.16	1.13	0.01	51	7.60	250	0.86	34.07	6.04	27.33	75	0.323
283	0.62	34.09	5.68	1.40	0.01	54	7.60	300	0.55	34.09	5.61	27.36	73	0.360
374	0.44	34.08	5.50	1.58	0.01	56	7.58	400	0.40	34.08	5.44	27.37	72	0.432
472	0.34	34.10	5.30	1.60	0.01	53	7.54	500	0.31	34.09	5.29	27.38	71	0.503
542	0.28	34.09	5.30	1.80	0.01	85	7.54							

St. No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	16	1445	1630	3	12	SSW 5	SSW 3

Wind		Baro.	Air TemP.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	5	1005.1	27.4	22.2	Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.46	33.88	5.20	0.75	0.01	50	8.03	0	20.46	33.88	5.20	23.18	410	0.000
10	20.37	33.92	5.30	0.87	0.00	56	8.02	10	20.37	33.92	5.30	23.86	405	0.041
20	20.07	34.02	5.30	6.60	0.00	62	8.00	20	20.07	34.02	5.30	24.02	391	0.081
30	17.46	34.30	6.14	0.52	0.00	62	7.93	30	17.46	34.30	6.14	24.89	308	0.116
49	12.52	34.28	6.90	0.64	0.00	51	7.90	50	12.33	34.27	6.90	25.98	204	0.167
74	8.74	34.16	6.52	0.80	0.01	47	7.90	75	8.61	34.16	6.48	26.54	151	0.211
98	5.58	34.13	6.12	1.06	0.01	45	7.89	100	5.20	34.11	6.21	26.97	110	0.244
110	3.49	34.05	6.70	0.77	0.01	45	7.83	125	2.70	34.03	6.88	27.16	91	0.269
132	2.66	34.04	6.86	0.73	0.01	44	7.80	150	2.20	34.02	6.89	27.20	88	0.292
177	1.75	34.02	6.84	1.06	0.15	47	7.72	200	1.46	34.03	6.73	27.26	82	0.335
221	1.27	34.05	6.60	1.26	0.14	48	7.60	250	1.05	34.05	6.46	27.31	77	0.375
263	0.98	34.06	6.40	1.12	0.13	48	7.58	300	0.83	34.06	6.24	27.33	75	0.413
361	0.70	34.08	6.00	1.16	0.08	49	7.55	400	0.60	34.08	5.85	27.36	73	0.488
456	0.49	34.09	5.64	1.20	0.02	64	7.55	500	0.40	34.09	6.45	27.37	72	0.560
532	0.34	34.09	5.30	1.73	0.01	74	7.50							

105선 해 양 관 측 성 적

Oceanographic Data, Line 105

4월(April) 조사선(Baek Du San)

St No.	Date	Time	Depth	W ter Color	Water Trans.	Wave	Swell
04	02	2130	240			E1	E1

ind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	7	1015.0	13.0	10.9	AiSt	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m.
0	10.95	34.33	7.06	0.79	—	7	8.20	0	10.95	34.33	7.06	26.28	174	0.000
10	9.91	34.32	7.06	0.55	—	6	8.21	10	9.91	34.32	7.06	26.46	158	0.017
20	6.34	34.22	6.91	0.52	—	8	8.20	20	6.34	34.22	6.91	26.91	115	0.030
30	4.88	34.15	6.89	0.52	—	9	8.10	30	4.88	34.15	6.89	27.04	103	0.041
50	1.87	34.08	6.85	0.63	—	11	8.05	50	1.87	34.08	6.85	27.27	81	0.060
75	1.17	34.07	6.77	0.49	—	10	7.90	75	1.17	34.07	6.77	27.31	77	0.080
100	0.99	34.07	6.68	0.51	—	9	7.88	100	0.99	34.07	6.68	27.23	76	0.099
125	0.85	34.08	6.32	0.97	—	10	7.88	125	0.85	34.08	6.32	27.34	74	0.118
150	0.70	34.08	6.31	0.98	—	10	7.88	150	0.70	34.08	6.31	27.35	73	0.136
								200	0.55	34.08	6.29	27.36	73	0.173
240	0.58	34.08	6.27	1.32	—	11	7.88							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	2	1955	420			E 4	E 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	7	103.5	15.2	11.2	AlSt	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.25	34.52	7.06	0.75	—	6	8.21	0	13.25	34.52	7.06	25.99	202	0.000
10	13.26	34.52	7.06	0.76	—	6	8.21	10	13.26	34.52	7.06	25.99	203	0.020
20	13.27	34.52	7.06	0.79	—	6	8.19	20	13.27	34.52	7.06	25.99	203	0.041
30	12.63	34.47	6.98	0.79	—	6	8.25	30	12.63	34.47	6.98	26.07	195	0.016
50	11.26	34.45	6.91	0.43	—	8	8.23	50	11.26	34.45	6.91	26.32	172	0.097
75	6.47	34.24	6.85	1.02	—	7	8.16	75	6.47	34.24	6.85	26.91	115	0.133
100	4.70	34.15	6.78	1.10	—	8	8.08	100	4.70	34.15	6.78	27.06	102	0.161
125	3.45	34.11	6.70	0.95	—	9	8.00	152	3.45	34.11	6.70	27.16	92	0.185
150	2.09	34.10	6.52	0.56	—	12	7.99	150	2.09	34.10	6.52	27.27	82	0.207
200	0.70	34.08	6.00	0.87	—	10	7.95	200	0.70	34.08	6.00	27.35	73	0.246
250	0.60	34.10	5.77	0.88	—	11	7.86	250	0.60	34.10	5.77	27.37	71	0.282
								300	0.49	34.10	5.64	27.38	70	0.318
377	0.33	34.09	5.65	0.89	—	13	7.80							

Tt No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	2	1445	1480	30	12	E 7	E 3

Wind		Force	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	10	1015.0	11.3	10.5	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	p.I	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	9.78	34.37	6.46	0.61	—	4	8.16	0	9.78	34.37	6.46	26.52	152	0.000
10	9.76	34.39	6.44	0.55	—	4	8.18	10	9.76	34.39	6.44	26.54	150	0.015
20	9.65	34.37	6.65	0.35	—	4	8.21	20	9.65	34.37	6.65	26.54	150	0.030
30	9.58	34.32	6.44	0.32	—	4	8.22	30	9.58	34.32	6.44	26.51	153	0.045
50	9.60	34.37	9.44	0.72	—	6	8.22	50	9.60	34.37	6.44	26.55	150	0.076
75	9.48	34.37	6.44	0.29	—	4	8.22	75	9.48	34.37	6.44	26.57	149	0.113
100	9.23	34.37	6.50	0.48	—	4	8.22	100	9.23	34.37	6.50	26.61	145	0.150
125	9.30	34.36	6.22	0.79	—	5	8.19	125	9.30	34.36	6.22	26.59	148	0.187
150	8.92	34.35	6.22	1.13	—	5	8.18	150	8.92	34.35	6.22	26.64	143	0.223
200	5.45	34.02	6.45	0.71	—	6	8.18	200	5.45	34.02	6.45	26.87	121	0.290
250	4.01	34.01	6.65	0.62	—	6	8.10	250	4.01	34.01	6.65	27.02	106	0.347
300	2.99	33.99	6.40	0.75	—	7	8.03	300	2.99	33.99	6.40	27.10	98	0.398
400	1.29	34.05	6.35	1.35	—	8	7.99	400	1.25	34.05	6.35	27.29	80	0.488
500	0.60	34.07	5.27	2.05	—	12	7.97	500	0.60	34.07	5.27	27.34	74	0.565
								600	0.14	34.08	4.56	27.38	69	0.637
								700	0.12	34.09	4.22	27.40	67	0.705
								800	0.20	34.10	4.25	27.41	65	0.772
1000	0.20	34.10	5.42	2.37	—	15	7.87	1000	0.20	34.10	5.42	27.39	68	0.907

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	02	0905	1140	4	12	NI	NI

Wind		Baro.	Air Temp.		cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	11	1021.0	8.7	8.5	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt$ cm^3/g	△D dyn. m
0	6.71	34.20	7.06	0.85	—	7	8.02	0	6.71	34.20	7.06	26.85	120	0.000
10	6.52	34.19	7.06	0.68	—	6	7.94	10	6.52	34.19	7.06	26.87	119	0.012
20	5.19	34.15	6.95	0.53	—	6	7.93	20	5.19	34.15	6.95	27.00	106	0.023
30	4.90	34.10	7.27	0.32	—	6	7.93	30	4.90	34.10	7.27	27.00	107	0.034
50	4.55	34.06	7.27	0.61	—	6	8.00	50	4.55	34.06	7.27	27.00	106	0.055
75	2.54	34.04	6.76	0.64	—	7	8.04	75	2.54	34.04	6.76	27.18	89	0.080
100	2.21	34.04	7.03	1.81	—	8	8.03	100	2.21	34.04	7.03	27.21	87	0.102
125	1.90	34.04	6.33	0.71	—	8	7.99	125	1.90	34.04	6.33	27.23	85	0.124
150	1.42	34.05	6.28	0.68	—	8	7.98	150	1.42	34.05	6.28	27.28	80	0.145
200	1.15	34.05	6.23	0.95	—	9	7.92	200	1.15	34.05	6.23	27.29	79	0.185
250	0.85	34.07	6.28	1.04	—	10	7.95	250	0.85	74.07	6.28	27.33	75	0.223
300	0.75	34.07	6.07	0.91	—	10	7.94	300	0.75	34.07	6.07	27.34	75	0.261
400	0.55	34.09	5.53	0.61	—	11	7.92	400	0.55	34.09	5.53	27.36	72	0.335
500	0.50	34.09	5.43	0.76	—	12	7.90	500	0.50	34.09	5.43	27.37	71	0.407
								600	0.44	34.09	5.35	27.37	71	0.478
								700	0.37	34.09	5.28	27.37	70	0.550
								800	0.30	34.09	5.23	27.38	70	0.620
1000	0.13	34.10	5.19	1.72	—	15	7.82	1000	0.13	34.10	5.19	27.39	68	0.758

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	2	0415	2375			NO	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	8	1015.0	7.5	7.2	CiCu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.87	34.24	7.06	0.53	—	5	8.04	0	6.87	34.24	7.06	26.86	120	0.000
10	6.87	34.23	7.06	0·53	—	5	8.12	10	6.87	34.23	7.06	26.85	120	0.012
20	6.74	34.23	7.06	0.52	—	6	8.12	20	6.74	34.23	7.06	26.87	119	0.024
30	5.90	34.18	6.98	0.80	—	6	8.12	30	5.90	34.18	6.98	26.94	112	0.036
50	5.02	34.15	6.91	0.84	—	6	8.12	50	5.02	34.15	6.91	27.02	105	0.057
75	4.62	34.14	0.91	0.65	—	6	8.80	75	4.62	34.14	6.91	27.06	101	0.083
100	3.36	34.05	6.77	0.80	—	7	8.04	100	3.36	34.05	6.77	27.12	92	0.108
125	2.14	34.03	6.64	0.67	—	8	7.98	125	2.14	34.03	6.64	27.21	87	0.131
150	1.25	34.02	6.51	0.98	—	7	7.96	150	1.25	34.02	6.51	27.26	81	0.152
200	1.17	34.06	6.06	1.38	—	9	7.92	200	1.17	34.06	6.06	27.30	78	0.192
250	0.81	34.08	5.78	1.06	—	12	7.89	250	0.81	34.08	5.78	27.34	74	0.231
300	0.75	34.08	5.69	0.73	—	10	7.84	300	0.75	34.08	5.69	27.34	74	0.268
400	0.58	34.09	5.65	0.97	—	13	7.82	400	0.58	34.09	5.65	27.36	72	0.341
500	0.34	34.09	5.51	1.78	—	13	7.79	500	0.34	34.09	5.51	27.38	70	0.413
								600	0.16	34.09	5.39	27.39	69	0.483
								700	0.05	34.09	5.29	27.39	68	0.552
								800	0.00	34.09	5.22	27.40	68	0.621
1000	0.10	34.10	5.13	1.06	—	15	7.76	1000	0.10	34.10	5.13	27.40	68	0.757

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	2	0020	2470			SW 1	SW 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	W	Type	Amount	
NE	6	1014.5	6.7	6.0	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	8.21	34.31	6.64	0.85	—	4	8.19	0	8.21	34.31	6.64	26.72	133	0.000
10	8.22	34.32	6.64	0.43	—	5	8.03	10	8.22	34.32	6.64	26.73	132	0.013
20	8.22	34.32	6.74	0.47	—	5	8.03	20	8.22	34.32	6.74	26.73	132	0.027
30	8.19	34.30	6.69	0.59	—	5	8.05	30	8.19	34.30	6.69	26.72	134	0.040
50	6.94	34.23	6.55	0.46	—	5	8.01	50	6.94	34.23	6.55	26.84	122	0.066
75	4.43	34.15	6.68	0.98	—	5	7.93	75	4.43	34.15	6.68	27.09	99	0.093
100	3.61	34.06	6.28	1.16	—	6	7.92	100	3.61	34.06	6.28	27.10	97	0.118
125	2.57	34.09	6.21	0.58	—	7	7.92	126	2.57	34.09	6.21	27.22	86	0.141
150	1.81	34.04	6.11	0.94	—	8	7.89	150	1.81	34.04	6.11	27.24	84	0.162
200	1.20	34.06	5.77	1.52	—	9	7.89	200	1.20	34.06	5.77	27.30	78	0.203
250	0.93	34.09	5.62	1.03	—		7.83	250	0.93	34.09	5.62	27.34	74	0.241
300	0.80	34.08	5.47	0.75	—	12	7.82	300	0.80	34.08	5.47	27.34	74	0.279
400	0.46	34.08	5.37	0.61	—	13	7.86	400	0.46	34.08	5.37	27.36	72	0.352
500	0.37	34.10	5.00	0.62	—	13	8.00	500	0.37	34.10	5.00	27.38	70	0.424
								600	0.31	34.11	—	27.40	68	0.493
								700	0.28	34.12	—	27.40	68	0.562
								800	1.28	34.12	—	27.40	68	0.630
1000	0.37	34.10	3.94	0.45	—	15	7.87	1000	0.37	34.10	—	27.38	70	0.768

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	17	1740	48	6	9	SW 3	SW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	3	1003.6	28.2	25.6	St Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	19.30	33.34	5.13	0.36	0.00	66	7.92	0	19.30	33.34	5.13	23.70	420	0.000
10	15.03	33.97	5.12	0.36	0.02	61	7.87	10	15.03	33.97	5.12	25.19	278	0.035
20	13.33	34.25	5.00	0.63	0.10	57	7.80	20	13.33	34.25	5.00	25.77	224	0.060
30	11.70	34.30	4.72	0.44	0.01	57	7.72	30	11.70	34.30	4.72	26.12	190	0.081
40	8.42	34.20	4.70	0.56	0.08	108	7.70							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
04	17	1625	250	3	13	W 4	W 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	3	1003.4	26.7	24.1	Ci St	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.52	33.36	5.96	0.37	0.01	58	8.01	0	20.52	33.36	5·96	23.40	449	0.000
10	17.23	34.20	5.90	0.60	—	—	7.97	10	17.23	34.20	5.90	24.87	309	0.038
20	12.09	34.26	4.80	0.67	0.01	70	7.93	20	12.09	34.26	4.80	26.02	200	0.063
30	10.39	34.27	4.90	0.53	0.12	58	7.92	30	10.39	34.27	4.90	26.34	170	0.082
50	5.49	34.15	5.26	0.53	0.01	53	7.90	50	5.49	34.15	5.26	26.97	110	0.110
75	3.74	34.07	5.76	0.53	0.01	58	7.90	75	3.74	34.07	5.76	27.10	98	0.136
98	2.70	34.03	5.92	0.75	0.01	81	7.82	100	2.63	34.03	5.93	27.17	91	0.160
123	2.10	34.04	5.90	0.89	0.27	56	7.77	125	2.05	34.04	5.87	27.22	86	0.182
148	1.66	34.05	5.50	0.88	0.23	68	7.70	150	1.63	34.05	5.49	27.26	82	0.203
198	1.18	34.05	5.40	0.92	0.27	58	7.68	200	1.16	34.05	5.39	27.29	79	0.244
227	1.00	34.07	5.16	0.88	0.01	53	7.60							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	17	1455	380	3	14	NW 3	NW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	2	1003.2	25.0	23.3	StCu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.39	33.36	5.28	0.41	0.01	53	8.00	0	20.39	33.36	5.28	23.43	446	0.000
10	20.19	33.38	5.32	0.45	0.01	39	7.96	10	20.19	33.38	5.32	23.50	440	0.044
20	19.65	34.26	4.42	0.60	0.01	45	7.90	20	19.65	34.26	4.42	24.31	363	0.084
30	12.84	34.27	4.66	0.40	0.01	43	7.85	30	12.84	34.27	4.66	25.88	213	0.113
50	11.71	34.19	6.00	0.73	0.01	48	7.80	50	11.71	34.19	6.00	26.03	199	0.155
74	6.65	34.07	6.62	0.56	0.12	42	7.75	75	6.43	34.06	6.63	26.78	128	0.196
99	2.54	34.05	6.70	0.47	0.06	56	7.73	100	2.48	34.05	6.70	27.19	88	0.223
117	2.02	34.05	6.70	0.67	0.01	47	7.70	125	1.93	34.04	6.64	27.24	84	0.244
148	1.79	34.05	6.40	1.06	0.02	48	7.70	150	1.75	34.05	6.38	27.25	83	0.265
190	1.10	34.07	6.10	0.83	0.02	56	7.66	200	1.03	34.07	6.09	27.32	76	0.305
234	0.94	34.08	6.10	—	0.02	60	7.62	250	0.87	34.08	6.10	27.34	74	0.343
277	0.78	34.09	6.10	1.20	0.01	66	7.67	300	0.73	34.09	6.90	27.36	73	0.380
327	0.71	34.10	6.10	1.12	0.01	69	7.72							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	17	1055	1480		13	SW 5	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	5	1005.6	21.6	21.4	St Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	19.66	33.56	5.28	0.88	0.01	48	7.92	0	19.66	33.56	5.28	23.77	413	0.000
9	17.54	33.70	6.52	0.84	0.00	52	7.90	10	17.20	33.71	6.49	24.50	344	0.038
18	14.98	33.88	5.74	0.80	0.01	53	7.90	20	14.88	33.93	5.52	25.19	278	0.069
27	14.98	34.10	4.80	1.00	0.01	55	7.92	03	14.89	34.13	4.65	25.34	264	0.096
46	14.21	34.19	4.36	1.00	0.02	51	7.87	50	14.09	34.20	4.31	25.57	242	0.147
64	13.31	34.25	4.30	0.88	0.04	51	7.80	75	11.65	34.26	4.54	26.11	191	0.202
85	9.89	34.26	4.90	0.80	0.15	53	7.80	100	7.76	34.15	5.72	26.68	137	0.243
160	4.28	34.11	6.00	0.97	0.13	55	7.74	125	4.54	34.10	6.04	27.04	103	0.273
127	4.33	34.11	6.02	0.98	0.01	55	7.73	150	2.32	34.05	6.10	27.21	87	0.297
150	2.32	34.05	6.10	1.08	0.01	53	7.72	200	1.18	34.06	6.06	27.31	77	0.339
160	1.89	34.07	6.00	1.09	0.01	53	—	250	0.91	34.08	5.99	27.33	75	0.377
170	1.59	34.07	6.00	0.88	0.02	58	7.72	300	0.72	34.09	5.71	27.35	73	0.444
217	1.11	34.07	6.08	1.06	0.01	64	7.72							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	17	0620	1150			WSW	4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SWS	2	1005.6	22.0	21.8	Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	20.78	33.90	5.48	0.49	0.01	35	8.18	0	20.78	33.90	5.48	23.74	416	0.000
9	21.16	34.09	5.32	0.39	0.01	57	8.15	10	21.14	34.11	5.29	23.80	411	0.041
18	20.23	34.25	5.28	0.44	0.01	32	8.09	20	19.58	34.27	5.43	24.34	360	0.080
27	16.92	34.36	6.02	0.44	0.01	34	8.08	30	15.70	34.37	6.11	25.35	263	0.111
45	10.86	34.40	6.20	0.43	0.01	42	8.08	50	10.32	34.39	6.26	26.44	160	0.154
64	10.00	34.38	6.34	0.53	0.01	44	7.90	75	9.82	34.37	6.22	26.51	153	0.193
86	9.77	34.37	6.06	0.48	0.01	45	7.90	100	9.72	34.37	5.98	26.53	152	0.231
120	9.59	34.37	5.90	0.47	0.01	42	7.82	125	9.55	34.36	5.85	26.55	150	0.270
144	9.02	34.33	5.74	0.57	0.01	43	7.76	150	8.41	34.29	5.81	26.68	137	0.306
180	5.01	34.10	6.32	1.10	0.01	45	7.72	200	3.77	34.06	6.50	27.09	98	0.366
226	2.81	34.06	6.60	1.13	0.01	47	7.68	250	2.21	34.05	6.56	27.22	86	0.413
264	1.97	34.05	6.50	1.13	0.01	46	7.58	300	1.46	34.05	6.36	27.28	80	0.455
362	0.96	34.08	6.06	1.22	0.10	59	7.57	400	0.80	34.08	5.81	27.35	73	0.532
464	0.67	34.10	5.42	1.60	0.06	62	7.45	500	0.57	34.10	5.29	27.73	72	0.605
565	0.43	34.10	5.18	1.73	0.04	69	7.40							

St No	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	17	0103	2375			SW5	SW3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	5	1005 0	22.5	22.3	Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.09	33.33	5.46	0.71	0.01	40	8.04	0	21.09	33.33	5.46	23.22	466	0.000
10	21.10	33.34	5.52	0.73	0.01	45	8.02	10	21.10	33.34	5.52	23.23	466	0.047
20	20.46	34.11	5.50	0.61	0.01	55	7.94	20	20.46	34.11	5.50	23.98	394	0.090
30	19.38	34.34	5.58	0.47	0.06	64	7.92	30	19.38	34.34	5.58	24.44	350	0.127
49	13.62	34.40	5.56	0.47	0.01	43	7.90	50	13.31	34.39	5.58	25.88	213	0.183
70	8.15	34.24	6.00	0.64	0.01	36	7.90	75	7.54	34.19	6.01	26.73	132	0.227
93	6.12	34.06	6.00	0.60	0.00	43	7.84	100	5.33	34.04	6.06	26.90	116	0.258
117	3.62	34.06	6.22	0.64	0.01	47	7.80	125	3.15	34.06	6.30	27.15	93	0.285
140	2.57	34.07	6.38	0.80	0.01	46	7.75	150	2.31	34.06	6.24	27.22	86	0.307
187	1.70	34.06	5.64	1.00	0.01	44	7.72	200	1.45	34.06	5.63	27.29	80	0.349
208	1.32	34.07	5.65	1.12	0.03	43	7.66	250	0.99	34.07	5.66	27.33	75	0.388
254	0.98	34.08	5.66	—	—	56	7.60	300	0.76	34.08	5.72	27.35	74	0.425
349	0.61	—	5.90	1.28	0.17	62	7.51	400	0.48	34.09	5.70	27.37	72	0.498
443	0.42	34.10	5.64	1.66	0.11	57	7.49	500	0.36	34.01	5.39	27.38	71	0.568
531	0.35	34.10	5.20	1.92	0.04	66	7.40							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	16	1915	2470			SW5	SW3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	5	1005.1	22.4	22.2	Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	21.07	33.81	5.18	0.53	0.01	50	8.06	0	21.07	33.81	5.18	23.59	430	0.000
8	21.10	33.85	5.26	0.51	0.01	58	8.04	10	21.15	33.81	5.23	23.57	432	0.043
16	20.81	33.82	5.20	0.40	0.00	60	8.00	20	19.48	34.09	5.45	24.23	370	0.083
25	17.58	34.48	5.80	0.40	0.01	59	7.95	30	16.55	34.56	5.90	25.30	268	0.115
41	15.13	34.50	5.90	0.75	0.01	57	7.92	50	13.91	34.49	5.85	25.84	217	0.164
61	12.88	34.49	5.50	0.87	0.12	57	7.90	75	12.57	34.48	5.72	26.10	192	0.216
74	12.71	34.49	5.72	0.53	0.02	56	7.90	100	9.00	34.32	5.90	26.61	144	0.258
123	5.26	34.15	6.30	0.93	0.01	57	7.88	125	5.11	34.14	6.36	27.00	107	0.290
142	4.19	34.08	6.80	0.85	0.01	59	7.82	150	3.88	34.07	6.87	27.08	99	0.316
185	2.76	34.07	6.70	0.87	0.01	60	7.77	200	2.15	34.07	6.47	27.24	84	0.362
220	1.43	34.07	6.14	1.38	0.01	60	7.74	250	1.05	34.07	5.94	27.32	76	0.403
310	1.04	34.07	5.82	1.68	0.02	64	7.72	300	0.97	34.07	5.81	27.32	76	0.441
401	0.74	34.07	5.64	2.20	0.04	68	7.60	400	0.74	34.07	5.64	27.34	75	0.517
498	0.54	34.09	5.58	1.84	0.03	81	7.55							

104선 해 양 관 측 성 적

Oceanographic Data, Line 104

3월(March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	30	1230	126	4	10	No	NI

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE. 6	6	1020.2	11.0	7.6	Ci St	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⌒D dyn. m
0	11.12	34.75	6.12	0.87	—	4	7.86	0	11.12	34.75	6.12	26.58	146	0.000
10	10.81	34.75	5.04	0.85	—	4	7.86	10	10.81	34.75	5.04	26.63	141	0.014
20	10.71	34.75	5.20	0.85	—	5	7.98	20	10.71	34.75	5.20	26.65	140	0.029
30	9.10	34.72	4.60	0.72	—	6	8.00	30	9.10	34.72	5.43	26.90	116	0.041
50	5.90	34.58	4.65	0.84	—	9	8.00	50	5.90	34.58	5.74	27.25	83	0.061
75	2.84	34.49	5.87	1.06	—	9	8.00	75	2.84	34.49	5.87	27.51	58	0.079
100	1.29	34.48	3.95	1.59	—	9	8.00	100	1.29	34.48	5.35	27.63	47	0.092
126	1.21	34.48	4.26	1.45	—	10	8.15	125	1.18	34.48	4.31	27.64	46	0.104

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	30	1400	220	4	10	N0	N 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	8	1019.5	11.5	10.4	Ci-St	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.23	34.87	6.38	0.83	—	6	8.23	0	13.23	34.87	6.38	26.26	176	0.000
10	13.10	34.88	6.25	0.79	—	6	8.26	10	13.10	34.88	6.25	26.30	173	0.018
20	12.61	34.82	6.17	0.56	—	6	8.25	20	12.61	34.82	6.17	26.35	168	0.035
30	11.43	34.76	6.10	1.00	—	7	8.21	30	11.43	34.76	6.10	26.53	152	0.051
50	8.17	34.71	5.82	3.27	—	8	8.13	50	8.17	34.71	5.82	27.04	103	0.076
75	3.80	34.47	5.54	3.36	—	8	8.15	75	3.80	34.47	5.54	27.41	68	0.098
100	2.10	34.45	5.81	1.18	—	9	8.13	100	2.10	34.45	5.81	27.55	55	0.113
125	1.71	34.47	5.18	1.18	—	11	8.10	125	1.71	34.47	5.18	27.59	51	0.127
150	1.35	34.34	5.09	1.64	—	12	8.08	150	1.35	34.44	5.09	27.59	50	0.139
220	0.92	34.47	5.56	1.30	—	12	7.99	200	0.95	34.44	5.32	27.62	48	0.164

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	30	1750	1050	3	11	NE 0	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	9	1018.4	11.1	8.9	Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	11.00	34.56	6.38	0.56	—	5	8.19	0	11.00	34.56	6.38	26.45	158	0.009
10	10.82	34.88	—	0.64	—	6	8.05	10	10.82	34.88	0.00	26.73	132	0.015
20	10.85	34.44	6.50	0.61	—	8	—	20	10.85	34.44	6.50	26.39	165	0.029
30	10.84	34.52	6.00	0.67	—	—	8.14	30	10.84	34.52	6.00	26.45	159	0.046
50	10.46	34.77	6.04	1.30	—	6	8.10	50	10.46	34.77	6.04	26.71	135	0.075
75	9.82	34.77	5.96	0.58	—	6	8.10	75	9.82	34.77	5.96	26.82	125	0.108
100	7.70	34.83	6.27	0.49	—	8	8.20	100	7.70	34.75	6.27	27.15	94	0.135
125	4.50	34.86	—	0.74	—	7	8.20	125	4.50	34.74	0.00	27.55	55	0.154
150	4.29	34.88	—	0.60	—	6	8.20	150	4.29	34.73	—	27.56	54	0.168
200	2.65	34.87	—	0.60	—	8	8.09	200	2.65	34.70	—	27.70	41	0.192
250	1.55	34.86	—	0.61	—	10	8.05	250	1.55	34.67	—	27.77	34	0.211
300	1.15	34.86	5.04	0.80	—	9	7.97	300	1.15	34.64	5.04	27.77	34	0.228
400	0.75	34.66	4.99	0.97	—	11	7.92	400	0.75	34.58	4.99	27.75	36	0.263
500	0.42	34.51	3.65	1.27	—	13	7.82	500	0.42	34.51	4.95	27.71	39	0.301
								600	0.17	34.48	4.92	27.70	40	0.341
								700	0.02	34.47	4.89	27.70	39	0.381
								800	0.04	34.47	4.88	27.70	39	0.421
1000	0.08	34.51	4.88	—	—	—	7.82	1000	0.08	34.51	4.88	27.73	37	0.497

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	30	2240	2280			NE 0	NE1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Anount	
SW	6	1018.8	8.0	7.9	Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.88	34.61	5.92	0.64	—	5	8.12	0	6.88	34.61	5.92	27.15	92	0.000
10	6.61	34.61	6.06	0.63	—	5	8.06	10	6.61	34.61	6.06	27.19	89	0.009
20	6.58	34.62	5.81	0.63	—	5	8.00	20	6.58	34.62	5.81	27.20	88	0.018
30	6.47	34.60	5.96	0.59	—	5	8.05	30	6.47	34.60	5.96	27.20	88	0.027
50	6.08	34.61	5.61	0.67	—	6	8.10	50	6.08	34.61	5.61	27.26	83	0.044
75	4.21	34.49	4.83	0.63	—	6	8.10	75	4.21	34.49	5.64	27.38	71	0.063
100	2.59	34.46	5.24	1.25	—	7	0.02	100	2.59	34.46	5.78	27.51	58	0.080
125	1.89	34.44	6.04	0.65	—	9	8.20	125	1.89	34.44	6.04	27.55	54	0.094
150	1.58	34.27	6.04	1.44	—	8	8.04	150	1.58	34.27	6.04	27.44	65	0.109
200	1.08	34.09	6.06	1.25	—	9	7.88	200	1.08	34.09	6.06	27.33	75	0.144
250	1.85	34.06	5.97	1.53	—	9	7.88	250	1.85	34.09	5.97	27.28	81	0.183
300	0.79	34.07	5.29	1.22	—	11	7.87	300	0.79	34.07	5.91	27.33	75	0.222
400	0.40	34.09	6.33	1.38	—	9	7.80	400	0.40	34.09	5.83	27.37	71	0.296
500	0.33	34.10	5.80	1.46	—	12	8.30	500	0.33	34.10	5.80	27.38	70	0.366
								600	0.27	34.10	5.77	27.39	69	0.436
								700	0.23	34.11	5.77	27.40	68	0.505
								800	0.20	34.11	5.80	27.40	67	0.573
1000	0.18	34.11	5.92	1.45	—	—	8.40	1000	0.18	34.11	5.92	27.40	67	0.709

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	31	0345	2270			E 1	E 1

Wind		oaro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	7	1016.5	10.2	8.8	Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.22	34.40	6.64	0.53	—	4	8.16	0	10.22	34.40	6.64	26.47	157	0.000
10	10.24	34.40	6.52	0.57	—	4	8.16	10	10.24	34.40	6.52	26.46	157	0.016
20	10.20	34.41	6.51	0.55	—	4	8.20	20	10.20	34.41	6.51	26.48	156	0.031
30	10.22	34.40	6.59	0.48	—	4	8.24	30	10.22	34.40	6.59	26.47	158	0.047
50	10.17	34.40	6.46	0.57	—	5	8.24	50	10.17	34.40	6.46	26.47	157	0.079
75	9.78	34.38	6.23	0.32	—	4	8.20	75	9.78	34.38	6.23	26.53	153	0.118
100	9.34	34.34	6.82	0.45	—	5	8.20	100	9.34	34.34	6.82	26.57	149	0.156
125	7.50	34.21	6.45	0.43	—	5	8.12	125	7.50	34.21	6.45	26.75	132	0.191
150	4.79	34.11	6.45	0.43	—	7	8.07	150	4.79	34.11	6.45	27.02	106	0.221
200	2.39	34.01	6.45	0.69	—	8	8.05	200	2.39	34.01	6.45	27.17	91	0.270
250	2.90	34.05	6.44	0.74	—	9	8.01	250	2.90	34.05	6.44	27.16	93	0.316
300	1.40	34.08	6.23	1.07	—	9	7.98	300	1.40	34.68	6.23	27.30	78	0.359
400	0.73	34.10	6.12	0.52	—	11	7.90	400	0.73	34.10	6.12	27.36	72	0.435
500	0.45	34.09	6.02	1.25	—	12	7.87	500	0.45	34.09	6.02	27.37	71	0.507
								600	0.25	34.08	5.92	27.37	70	0.579
								700	0.14	34.08	5.82	27.38	70	0.649
								800	0.12	34.08	5.72	27.38	69	0.719
1000	0.33	34.09	5.52	0.61	—	16	7.00	1000	0.33	34.09	5.52	27.38	70	0.860

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	31	0930	2010			E 0	E 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	7	1017.0	11.3	9.2	Al St	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.62	34.43	6.85	0.56	—	4	8.05	0	10.62	34.43	6.85	26.42	161	0.000
10	10.57	34.43	6.85	0.67	—	4	8.15	10	10.57	34.43	6.85	26.43	161	0.016
20	10.56	34.48	6.81	0.57	—	4	8.20	20	10.56	34.48	6.81	26.47	157	0.032
30	10.57	34.43	6.73	0.76	—	4	8.24	30	10.57	34.43	6.73	26.43	161	0.048
50	10.45	34.43	6.42	0.61	—	4	8.21	50	10.45	34.43	6.42	26.45	160	0.080
75	10.21	34.41	6.35	0.68	—	4	8.20	75	10.21	34.41	6.35	26.48	158	0.120
100	9.74	34.25	6.11	0.88	—	4	8.18	100	9.74	34.25	6.11	26.43	162	0.160
125	8.15	34.26	6.37	1.20	—	4	8.14	125	8.15	34.26	6.37	26.69	138	0.198
150	6.89	34.18	6.43	1.20	—	6	8.13	150	6.89	34.18	6.43	26.81	127	0.231
200	4.47	34.08	6.23	0.85	—	6	8.11	200	4.47	34.08	6.23	27.03	106	0.289
250	2.99	34.05	6.00	1.50	—	7	8.09	250	2.99	34.05	6.00	27.15	93	0.339
300	1.95	34.05	5.84	1.50	—	7	8.06	300	1.95	34.05	5.84	27.24	85	0.384
400	0.90	34.09	5.68	1.83	—	8	8.00	400	0.90	34.09	5.68	27.34	74	0.464
500	0.63	34.11	5.66	2.19	—	7	8.00	500	0.63	34.11	5.66	27.37	71	0.537
								600	0.42	34.12	5.64	27.40	68	0.607
								700	0.27	34.12	5.62	27.41	67	0.675
								800	0.19	34.12	5.60	27.41	66	0.742
1000	0.22	34.10	5.57	2.51	—	15	7.98	1000	0.22	34.10	5.57	27.39	68	0.878

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
15	31	1435	1100	2	6	E 5	E 2

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	14	1015.5	10.2	9.7	Al St	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dyn. m
0	9.62	34.37	6.93	0.55	—	4	8.02	0	9.62	34.37	6.93	26.54	149	0.000
10	9.64	34.38	6.75	0.72	—	4	8.10	10	9.64	34.38	6.75	26.55	149	0.015
20	9.52	34.38	6.56	1.36	—	4	8.20	20	9.52	34.38	6.56	26.57	148	0.030
30	9.40	34.30	6.44	0.59	—	5	8.21	30	9.40	34.30	6.44	26.53	152	0.045
50	8.99	34.17	6.36	0.69	—	6	8.20	50	8.99	34.17	6.36	26.49	155	0.076
75	7.50	34.11	6.30	0.54	—	7	8.19	75	7.50	34.11	6.30	26.67	139	0.113
100	5.49	34.04	6.22	0.41	—	7	8.16	100	5.49	34.04	6.22	26.88	119	0.145
125	3.68	34.03	6.22	0.54	—	7	8.11	125	3.68	24.03	6.22	27.07	101	0.172
150	2.69	34.06	6.15	1.20	—	8	8.05	150	2.69	34.06	6.15	27.18	89	0.196
200	1.32	34.08	6.15	1.51	—	9	8.00	200	1.32	34.08	6.15	27.31	78	0.238
250	0.97	34.08	6.00	1.17	—	9	7.96	250	0.97	34.08	6.00	27.33	75	0.277
300	0.75	34.08	5.71	1.43	—	9	7.94	300	0.75	34.08	5.71	27.34	74	0.314
400	0.60	34.11	5.11	2.01	—	10	7.90	400	0.60	34.11	5.11	27.38	71	0.387
500	0.50	34.13	4.97	2.02	—	12	7.88	500	0.50	34.13	4.97	27.40	68	0.457
								600	0.40	34.14	4.87	27.41	67	0.525
								700	0.32	34.14	4.82	27.42	66	0.592
								800	0.25	34.14	4.81	27.42	66	0.658
1000	0.04	—	—	—	—	16	7.84	1000	0.14	34.11	4.93	27.40	67	0.729

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
17	1	0200	320	9	9	SW2	SW2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NWW	10	1012.5	8.8	8.2	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-S μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	11.85	34.55	6.04	0.63	—	3	8.09	0	11.85	34.55	6.04	26.29	174	0.000
10	11.85	34.55	6.16	0·51	—	4	8.10	10	11.85	34.55	6.16	26.29	174	0.017
20	11.71	34.52	5.96	0.59	—	4	8.15	20	11.71	34.52	5.96	26.29	174	0.035
30	11.27	34.48	5.91	0.72	—	4	8.19	30	11.27	34.48	5.91	26.34	169	0.052
50	10.33	34.43	5.85	0.72	—	5	8.20	50	10.33	34.43	5.85	26.47	158	0.085
75	8.65	34.29	5.80	0.37	—	5	8.20	75	8.65	34.29	5.80	26.64	142	0.122
100	5.68	34.16	5.94	0.85	—	5	8.12	100	5.68	34.16	5.94	26.95	112	0.154
125	3.19	34.09	5.86	0.82	—	8	8.09	125	3.19	34.09	5.86	27.16	91	0.180
150	2.12	34.10	5.81	1.07	—	10	8.07	150	2.12	34.10	5.81	27.26	82	0.202
200	0.89	34.10	5.44	1.32	—	12	8.00	200	0.89	34.10	5.44	27.35	73	0.241
250	0.51	34.11	6.00	1.26	—	11	7.94	250	0.51	34.11	6.00	27.38	70	0.277
320	0.42	34.32	5.43	1.92	—	15	7.98	300	0.39	0.00	5.75			0.975

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
19	1	0620	1350			SE 5	SE 2

Wind		Baro:	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	8	1013.0	9.4	8.6	Cu	2	8

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.46	34.32	6.21	0.48	—	5	8.09	0	10.46	34.32	6.21	26.36	167	0.000
10	10.43	34.33	6.21	0.49	—	4	8.06	10	10.43	34.33	6.21	26.37	166	0.017
20	10.35	34.32	6.23	0.68	—	4	8.10	20	10.35	34.32	6.23	26.38	165	0.033
30	10.37	34.33	6.23	0.41	—	4	8.15	30	10.34	34.33	6.23	26.39	165	0.050
50	10.36	34.33	6.13	0.53	—	5	8.18	50	10.36	34.33	6.13	26.39	165	0.083
75	10.33	34.32	6.11	0.69	—	5	8.18	75	10.33	34.32	6.11	26.38	166	0.125
100	9.73	34.02	5.83	0.88	—	5	8.18	100	9.73	34.02	5.83	26.25	179	0.168
125	9.79	34.01	5.87	0.53	—	6	8.14	125	9.79	34.01	5.87	26.23	181	0.213
150	3.19	34.01	5.71	1.21	—	8	8.10	150	3.19	34.01	5.71	27.10	98	0.248
200	2.17	34.01	5.77	1.73	—	8	8.04	200	2.17	34.01	5.77	27.19	89	0.295
250	1.50	34.01	5.83	1.49	—	10	7.97	250	1.50	34.01	5.83	27.24	84	0.339
300	0.80	34.01	5.70	0.89	—	12	7.94	300	0.80	34.01	5.70	27.28	79	0.380
400	0.46	34.01	5.01	0.56	—	12	7.81	400	0.46	34.01	5.01	27.30	77	0.459
500	0.30	34.01	4.92	1.20	—	12	7.75	500	0.30	34.01	4.92	27.31	76	0.536
								600	0.18	34.01	4.87	27.32	75	0.612
								700	0.11	34.03	4.85	27.34	73	0.686
								800	0.08	34.05	4.86	27.36	71	0.759
1000	0.15	34.11	5.00	0.72	—	16	7.72	1000	0.15	34.11	5.00	27.40	67	0.899

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
21	1	1030	2230	4	10	SE 5	SE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
WNW	8	15.5	9.3	8.4	CiCu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	12.59	34.59	6.23	0.25	—	4	8.00	0	12.59	34.59	6.23	26.18	184	0.000
10	12.56	34.60	6.13	0.41	—	4	8.14	10	12.56	34.60	6.13	26.19	183	0.018
20	12.35	34.59	6.13	0.56	—	4	7.97	20	12.35	34.59	6.13	26.22	180	0.037
30	12.22	34.48	6.15	0.03	—	5	7.95	30	12.22	34.48	6.15	26.16	186	0.055
50	10.11	34.35	6.23	0.45	—	5	8.29	50	10.11	34.35	6.23	26.45	150	0.090
75	9.49	34.36	5.92	0.67	—	5	8.24	75	9.49	34.36	5.92	26.56	150	0.129
100	7.02	34.21	6.04	0.56	—	7	7.89	100	7.02	34.21	6.04	26.82	125	0.163
125	4.21	34.10	5.75	0.85	—	6	7.86	125	4.21	34.19	5.75	27.07	101	0.191
150	2.26	34.08	5.52	0.97	—	6	7.83	150	2.26	34.08	5.52	27.24	84	0.215
200	1.39	34.08	5.60	1.14	—	1	7.82	200	1.39	34.08	5.60	27.30	78	0.256
250	0.97	34.09	5.71	1.50	—	11	7.78	250	0.97	34.09	1.71	27.34	74	0.294
300	0.72	34.09	5.39	1.52	—	10	7.75	300	0.72	34.09	5.39	27.35	73	0.331
400	0.43	34.10	5.33	1.39	—	10	7.75	400	0.43	34.10	5.33	27.38	70	0.403
500	0.32	34.10	5.03	1.62	—	12	7.67	500	0.32	34.10	5.03	27.38	69	0.473
								600	0.23	34.10	4.83	27.39	69	0.543
								700	0.17	34.10	4.72	27.39	68	0.612
								800	0.13	34.10	4.71	27.40	68	0.680
1000	0.12	34.11	4.98	1.69	—	15	7.69	1000	0.12	34.11	4.98	27.40	67	0.816

7월(July) 조사선(Baek Du Ssn)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	18	0105	110			S 2	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1006.2	18.7	18.4	St Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⌒D dyn. m
0	15.02	34.15	5.20	0.27	0.02	94	7.89	0	15.02	34.15	5.20	25.33	265	0.000
10	13.98	34.25	5.22	0.29	0.17	60	7.79	10	13.98	34.25	5.22	25.63	236	0.025
20	10.05	34.31	5.40	0.47	0.00	57	7.78	20	10.05	34.31	5.40	26.42	161	0.045
30	6.65	34.18	6.50	0.52	0.02	35	7.78	30	6.65	34.18	6.50	26.84	122	0.059
50	4.38	34.09	6.60	0.77	0.01	48	7.78	50	4.38	34.09	6.60	27.05	102	0.082
75	3.37	34.06	6.52	0.79	0.13	51	7.78	75	3.37	34.06	6.52	27.12	95	0.107
100	2.81	34.05	6.26	0.81	—	53	7.78	100	2.81	34.05	6.26	27.17	91	0.130

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	18	0205	220			S 0	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1006.2	23.2	20.0	8	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	18.28	33.84	5.92	0.31	0.04	52	7.90	0	18.28	33.84	5.92	24.34	359	0.000
10	12.71	34.19	6.02	0.33	0.06	52	7.80	10	12.71	34.19	6.02	25.84	216	0.029
19	10.18	34.20	6.00	0.48	0.01	51	7.73	20	9.82	34.20	6.02	26.38	165	0.048
29	9.80	34.20	6.22	0.40	0.21	73	7.70	30	6.60	34.19	6.23	26.86	120	0.062
48	4.53	34.05	6.30	0.55	0.13	72	7.63	50	4.36	34.04	6.28	27.01	106	0.085
72	3.02	34.05	6.06	0.80	0.11	77	7.62	75	2.85	34.05	6.05	27.16	91	0.110
96	1.94	34.05	6.02	0.57	0.10	77	7.57	100	1.88	34.05	6.02	27.24	83	0.132
121	1.71	34.06	6.00	0.94	0.09	75	7.57	125	1.64	34.06	6.00	27.27	81	0.152
134	1.49	34.06	6.00	1.00	0.08	88	7.56	150	1.27	34.06	6.00	27.30	78	0.172
171	1.10	34.08	6.00	0.60	0.06	92	7.53							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	18	0525	1050			SSW 3	SSW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1006.3	22.2	21.6	Ci St	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.59	33.51	5.32	0.59	0.21	53	7.94	0	20.59	33.51	5.32	23.49	440	0.000
10	20.37	33.60	5.40	0.77	0.21	62	7.93	10	20.37	33.60	5.40	23.62	428	0.043
19	11.14	34.16	5.34	0.76	0.27	64	7.90	20	10.71	34.18	5.29	26.21	181	0..74
29	8.95	34.26	4.90	0.76	0.12	63	7.86	30	8.77	34.26	4.92	26.60	145	0.090
48	6.16	34.19	5.70	0.87	0.19	76	7.80	50	5.87	34.17	5.75	26.94	112	0.116
71	3.47	34.07	6.10	0.64	0.31	41	7.77	75	3.22	34.06	6.16	27.14	94	0.142
95	2.45	34.05	6.40	0.75	0.31	50	7.74	100	2.29	34.05	6.43	27.21	87	0.165
119	1.78	34.06	6.44	1.09	0.29	49	7.70	125	1.62	34.06	6.39	27.27	81	0.186
136	1.38	34.07	6.28	1.04	0.28	54	7.71	150	1.20	34.07	6.23	27.31	77	0.206
190	0.97	34.07	6.20	0.93	0.25	60	7.72	200	0.92	34.06	6.16	27.32	76	0.244
234	0.80	34.07	6.04	1.41	0.23	57	7.63	250	0.75	34.07	6.00	27.34	73	0.282
285	0.49	34.09	5.94	1.26	0.21	63	7.60	300	0.64	34.09	5.90	27.36	73	0.319
378	0.52	34.10	5.70	1.49	0.18	59	7.60	400	0.47	34.10	5.66	27.38	71	0.390
466	0.37	34.12	5.46	1.56	0.16	95	7.62	500	0.35	34.10	5.23	27.39	70	0.461
513	0.36	34.11	5.12	1.61	0.15	89	7.50							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	18	1015	2340	3		SW 3	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	3	1007.2	22.8	22.4	St Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.72	33.65	5.58	0.29	0.04	58	7.97	0	20.72	33.65	5.58	23.56	433	0.000
10	20.58	33.69	5.56	0.36	0.10	61	7.95	10	20.58	33.69	5.56	23.63	427	0.043
19	19.54	34.13	5.62	0.33	0.01	60	7.92	20	19.46	34.15	5.63	24.28	366	0.083
29	18.90	34.29	5.68	0.27	0.06	59	7.90	30	18.81	34.29	5.69	24.55	340	0.118
48	17.55	34.29	5.76	0.31	0.19	43	7.90	50	17.51	34.30	5.76	24.88	308	0.183
72	17.28	34.49	5.68	0.33	0.15	60	7.84	75	17.18	34.49	5.66	25.10	287	0.258
96	16.14	34.48	5.56	0.40	0.08	62	7.82	100	15.89	34.48	5.54	25.39	260	0.327
120	14.23	34.49	5.50	0.52	0.27	60	7.80	125	13.60	34.48	5.53	25.89	212	0.387
143	11.19	34.44	5.68	0.32	0.15	62	7.72	150	10.30	34.40	5.77	26.45	159	0.434
172	7.77	34.27	6.02	0.31	0.13	63	7.70	200	5.21	34.15	6.07	27.00	107	0.501
219	3.86	—	6.04	0.40	0.10	67	7.68	250	2.21	34.04	6.11	27.21	87	0.511
254	2.05	34.04	6.12	1.13	0.09	67	7.62	300	1.12	34.04	6.25	27.29	79	0.592
334	0.98	34.08	6.26	1.28	0.07	73	7.53	400	0.69	34.09	5.72	27.35	73	0.669
422	0.67	34.09	5.50	1.22	0.06	83	7.40	500	0.52	34.09	5.14	27.37	72	0.741
509	0.52	34.09	5.12	1.28	0.04	82	7.40							

Su No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	18	1425	2325	3	20	SW 2	SW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1006.6	23.2	22.4	Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	22.40	33.55	4.94	0.21	0.04	53	8.14	0	22.40	33.55	4.94	23.03	484	0.000
10	21.97	33.58	5.10	0.21	0.01	65	8.15	10	21.97	33.58	5.10	23.17	471	0.048
20	21.71	33.62	5.10	0.36	0.15	60	8.09	20	21.71	33.62	5.10	23.27	462	0.094
30	19.14	34.25	5.40	0.35	0.19	63	8.08	30	19.14	34.25	5.40	24.43	351	0.135
50	16.21	34.36	5.52	0.43	0.31	55	8.03	50	16.21	34.36	5.52	25.23	275	0.198
75	14.94	34.47	4.80	0.57	0.21	54	8.02	75	14.94	34.47	4.80	25.60	240	0.263
100	12.53	34.49	4.78	0.47	0.25	64	7.90	100	12.53	34.49	4.78	25.11	192	0.317
121	10.65	34.42	4.82	0.60	0.33	63	7.83	125	10.50	34.41	4.83	26.43	161	0.362
142	10.05	34.38	4.90	0.61	0.19	58	7.80	150	9.70	34.35	5.03	26.52	153	0.402
183	7.70	34.20	5.58	0.67	0.07	55	7.70	200	6.13	34.18	5.64	26.92	114	0.470
228	3.73	34.10	5.62	0.92	0.05	58	7.72	250	2.83	34.06	5.66	27.18	90	0.522
268	2.38	34.05	5.70	0.87	0.04	50	7.70	300	1.71	34.05	5.78	27.26	82	0.566
364	0.99	34.09	5.90	1.09	0.03	55	7.70	400	0.76	34.09	5.92	27.36	73	0.644
463	0.58	34.10	5.80	1.06	0.02	61	7.62	500	0.49	—	5.59	—	—	—
560	0.43	34.16	5.06	1.81	0.01	76	7.58							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
13	18	1815	2010	3	18	SSW3	SSW3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amout	
SSW	3	1006.1	23.4	22.8	Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⌒D dyn. m
0	26.59	33.71	5.00	0.29	0.01	53	7.93	0	26.59	33.71	5.00	21.90	592	0.000
10	20.99	33.88	5.20	0.35	0.04	55	7.92	10	20.99	33.88	5.20	23.67	424	0.051
20	20.47	34.10	5.34	0.33	0.08	51	7.90	20	20.47	34.10	5.34	23.97	395	0.092
30	18.76	34.21	5.34	0.37	0.08	50	7.90	30	18.76	34.21	5.34	24.50	345	0.129
50	15.83	34.38	5.50	0.39	0.08	47	7.88	50	15.83	34.38	5.50	25.33	266	0.190
74	14.55	34.41	4.82	0.47	0.08	45	7.82	75	14.48	34.41	4.81	25.65	235	0.253
99	12.52	34.42	4.80	0.57	0.17	57	7.78	100	12.46	34.42	4.79	26.07	195	0.307
124	9.45	34.33	4.80	0.40	0.13	54	7.74	125	9.15	34.31	4.81	26.58	147	0.351
134	6.49	34.20	4.96	0.98	0.12	75	7.68	150	4.35	34.10	5.47	27.06	101	0.382
177	3.47	34.08	6.26	0.87	0.11	65	7.60	200	2.51	34.06	6.28	27.20	88	0.430
223	1.89	34.06	6.10	0.87	0.10	64	7.53	250	1.40	34.06	6.00	27.27	79	0.472
270	1.17	34.08	5.92	1.00	0.08	58	7.50	300	0.95	34.08	5.82	27.34	75	0.511
370	0.74	34.10	5.58	0.76	0.07	68	7.50	400	0.63	34.10	5.46	27.37	72	0.584
468	0.44	34.10	5.22	1.18	0.06	73	7.50	500	0.38	34.10	5.15	27.38	71	0.655
564	0.34	34.11	5.10	1.33	0.05	74	7.49	600						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
15	18	2205	1335			SW 4	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	5	1006.8	22.6	22.3		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	iSO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.48	34.11	5.04	0.40	0.12	44	8.02	0	21.48	34.11	5.04	23.71	419	0.000
10	21.49	34.13	5.30	0.40	0.06	44	8.10	10	21.49	34.13	5.30	23.72	419	0.042
20	20.25	34.25	5.48	0.39	0.10	48	7.90	20	20.25	34.25	5.48	24.14	378	0.082
30	17.86	34.40	5.32	0.40	0.06	50	7.88	30	17.86	34.40	5.32	24.87	309	0.116
50	15.57	34.47	5.20	0.48	0.04	35	7.80	50	15.57	34.47	5.20	25.46	253	0.173
75	13.82	34.49	5.20	0.51	0.06	40	7.76	75	13.82	34.49	5.20	25.85	216	0.232
100	11.26	34.44	5.36	0.53	0.02	39	7.72	100	11.26	34.44	5.36	26.31	173	0.281
125	9.28	34.33	5.44	0.60	0.01	58	7.70	125	9.28	34.33	5.44	26.57	148	0.321
150	6.04	34.17	5.72	0.84	0.08	59	7.66	150	6.04	34.17	5.72	26.91	116	0.355
199	2.41	34.09	5.90	0.81	0.37	63	7.62	200	2.37	34.09	5.90	27.24	84	0.405
249	1.23	34.09	5.90	1.00	0.35	55	7.54	250	1.21	34.09	5.89	27.32	76	0.446
299	0.80	34.09	5.52	1.06	0.92	76	7.50	300	0.79	34.09	5.52	27.35	74	0.484
399	0.51	34.10	5.45	1.01	0.25	65	7.47	400	0.50	34.10	5.45	27.37	72	0.556
498	0.36	34.11	5.20	1.33	0.23	69	7.40	500	0.35	34.11	5.20	27.39	70	0.626
597	0.28	34.10	5.12	1.36	0.27	73	7.40							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
17	19	0150	320			SW 4	SW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	5	1006.0	22.3	22.2	StCu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\,dt/cm^3/g$	⊿D dyn. m
0	21.31	33.84	5.12	0.29	0.06	42	8.00	0	21.31	33.84	5.12	23.55	435	0.000
10	21.27	33.85	5.04	0.29	0.02	49	8.00	10	21.27	33.85	5.04	23.57	433	0.043
20	19.07	34.37	5.04	0.35	0.21	51	8.02	20	19.07	34.37	5.04	24.54	340	0.082
30	17.19	34.37	5.04	0.40	0.12	44	7.89	30	17.19	34.37	5.04	25.01	296	0.114
50	13.99	34.37	4.50	0.43	0.04	49	7.83	50	13.99	34.37	5.11	25.72	228	0.167
75	8.67	34.27	5.96	0.39	0.17	40	7.82	75	8.67	34.27	5.24	26.62	143	0.213
100	6.50	34.20	5.42	0.46	0.06	58	7.60	100	6.50	34.20	5.42	26.88	118	0.246
114	3.67	34.06	5.50	0.47	0.04	53	7.60	125	2.89	34.03	5.55	27.15	93	0.273
149	2.68	34.06	5.58	0.59	0.03	50	7.56	150	2.64	34.06	5.58	27.19	89	0.296
193	1.22	34.05	5.32	0.87	0.02	50	7.56	200	1.09	34.05	5.28	27.30	78	0.338
240	0.66	34.06	5.10	0.84	0.02	69	7.42	250	0.59	34.06	5.08	27.34	74	0.376
289	0.52	34.05	5.06	1.04	0.01	77	7.42							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
19	19	0520	450			WSW 2	WSW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
WSW	2	1006.5	22.4	22.2	Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	21.27	33.81	4.78	0.35	0.08	64	8.00	0	21.27	33.81	4.78	23.54	436	0.000
9	21.27	33.82	4.86	0.37	0.04	62	8.02	10	21.32	33.81	4.88	23.52	437	0.044
19	21.05	33.84	5.00	0.29	0.04	49	8.00	20	20.76	33.87	5.01	23.72	419	0.087
28	18.04	34.16	5.04	0.27	0.10	48	7.83	30	17.50	34.20	5.04	24.80	316	0.123
47	13.82	33.35	5.06	0.51	0.08	57	7.83	50	13.26	34.45	5.08	25.93	209	0.176
70	10.06	34.35	5.22	0.63	0.02	52	7.80	75	9.71	34.34	5.18	26.51	154	0.221
94	7.00	33.09	5.30	0.51	0.03	52	7.72	100	4.79	34.12	5.57	27.03	104	0.254
103	3.82	34.10	5.72	0.88	0.04	53	7.60	125	3.35	34.08	6.12	27.15	93	0.279
115	3.65	34.08	6.12	0.98	0.03	53	7.50	150	2.48	34.12	5.77	27.25	83	0.301
153	2.37	34.13	5.70	0.84	0.02	57	7.53	200	1.25	34.10	5.65	27.33	76	0.341
197	1.30	34.10	5.68	1.00	0.01	62	7.50	250	0.72	34.10	5.21	27.36	72	0.378
228	0.91	34.10	5.34	0.96	0.01	62	7.37	300	0.56	34.10	5.26	27.38	71	0.414
306	0.57	34.11	5.30	1.06	0.01	60	7.40							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
21	19	0905	2110	3	15	SW 5	SW 4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
WSW	5	1006.7	23.0	22.9	Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.92	33.67	5.06	0.25	0.01	37	8.03	0	21.92	33.67	5.06	23.25	463	0.000
10	21.94	33.69	5.10	0.27	0.08	43	8.02	10	21.94	33.69	5.10	23.27	462	0.046
19	19.99	34.04	5.50	0.31	0.06	53	8.02	20	19.73	34.04	5.54	24.12	380	0.088
29	17.58	34.10	5.84	0.24	0.01	60	8.02	30	17.50	34.12	5.82	24.74	322	0.123
48	17.54	34.50	5.30	0.43	0.20	51	7.80	50	17.55	34.50	5.28	25.02	295	0.185
61	19.96	34.49	5.24	0.37	0.18	52	7.80	75	17.55	34.49	5.24	25.02	295	0.259
82	17.48	34.50	5.20	0.40	0.01	53	7.72	100	16.78	34.45	4.65	25.17	281	0.332
102	16.69	34.45	4.60	0.51	0.06	54	7.80	125	15.09	34.42	5.02	25.53	246	0.398
123	15.79	34.44	4.90	0.49	0.01	56	7.90	150	6.59	34.23	6.08	26.89	117	0.445
140	9.26	34.32	5.90	0.52	0.01	56	7.88	200	2.26	34.07	6.02	27.23	85	0.496
161	4.49	34.15	6.10	0.47	0.01	55	7.80	250	1.37	34.06	6.00	27.29	79	0.537
193	2.49	34.08	6.03	0.60	0.01	56	7.78	300	1.00	34.05	—	27.31	77	0.576
259	1.36	34.07	6.00	0.85	0.01	55	7.73	400	0.61	34.07	—	27.35	74	0.652
339	0.82	34.05	—	—	0.01	55								
420	0.58	34.09	—	—	0.01	55								

103선 해 양 관 측 성 적

Oceanographic Data, Line

3월 (March) 조선선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	28	1810	117			SW4	SW2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	8	1019·9	8.5	7.4	CiCu	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	13.78	34.60	5.89	0.36	—	5	7.86	0	13.78	34.60	5.89	25.94	207	0.000
10	13.52	34.87	5.44	0.47	—	5	7.92	10	13.52	34.87	5.54	26.20	182	0.019
20	12.62	34.82	5.29	0.65	—	6	8.00	20	12.62	34.82	5.29	26.35	169	0.037
30	11.05	34.74	5.52	0.50	—	6	8.00	30	11.05	34.74	5.52	26.58	146	0.053
50	6.52	34.49	5.90	1.16	—	8	8.02	50	6.52	34.49	5.90	27.10	97	0.077
75	3.54	34.52	6.04	0.45	—	8	8.02	75	3.54	34.52	6.04	27.47	62	0.097
100	2.71	34.48	5.85	1.13	—	7	8.00	100	2.71	34.48	5.85	27.52	58	0.112
117	2.26	34.47	5.01	1.12	—	7	8.15	125						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	28	1910	170			SW 4	SW2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	7	1020.0	8.1	6.6	Cu	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^2/g}$	△D dyn.m
0	13.65	34.97	5.73	0.40	—	4	8.02	0	13.65	34.97	5.73	26.26	177	0.000
10	13.68	34.99	5.73	0.41	—	4	1.12	10	13.68	34.99	5.73	26.26	176	0.018
20	13.66	34.99	5.71	0.39	—	5	8.17	20	13.66	34.99	5.71	26.27	176	0.035
30	13.69	34.99	5.61	0.87	—	6	8.20	30	13.69	34.99	5.61	26.26	177	0.053
50	11.21	34.78	5.56	1.02	—	8	8.17	50	11.21	34.78	5.56	26.59	147	0.086
75	4.35	34.52	5.42	1.15	—	6	8.18	75	4.35	34.52	5.42	27.39	70	0.113
100	2.75	34.46	5.52	1.32	—	9	8.16	100	2.75	34.46	5.52	27.50	60	0.129
125	2.03	34.47	5.58	1.00	—	8	8.14	125	2.03	34.47	5.58	27.57	53	0.143
150	1.69	34.58	5.48	1.25	—	9	8.03	150	1.69	34.58	5.48	27.69	41	0.155
170	1.40	34.50	5.36	1.25	—	9	7.94	200						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	28	2210	795			SW4	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	ype	Amount	
NE	8	1020.0	7.5	6.4	Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	13.60	34.98	5.79	0.68	—	—	7.92	0	13.60	34.98	5.79	26.27	175	0.000
10	13.56	35.00	5.79	0.79	—	5	7.99	10	13.56	35.00	5.79	26.30	173	0.017
20	13.57	34.99	5.73	0.63	—	5	8.03	20	13.57	34.99	5.73	26.29	174	0.035
30	13.56	34.99	5.76	0.61	—	5	8.15	30	13.56	34.99	5.69	26.29	174	0.052
50	13.51	34.99	5.64	1.69	—	5	8.21	50	13.51	34.99	5.64	26.30	174	0.087
75	13.24	34.98	5.62	1.08	—	7	8.21	75	13.24	34.98	5.62	26.35	170	0.130
100	13.20	34.97	5.61	0.76	—	7	8.21	100	13.20	34.97	5.61	26.35	171	0.173
125	9.52	34.90	5.62	0.63	—	7	8.18	125	9.52	34.85	5.62	26.94	115	0.209
150	1.95	34.99	5.63	1.65	—	—	8.01	150	1.95	34.73	5.63	27.78	33	0.228
200	1.19	34.49	5.61	2.75	—	8	7.79	200	1.19	35.49	5.61	27.64	46	0.247
250	0.90	34.49	5.49	1.02	—	9	7.84	250	0.90	34.49	5.49	27.66	44	0.270
300	0.70	34.49	5.50	0.65	—	9	7.77	300	0.70	34.49	5.50	27.68	42	0.292
400	0.50	34.49	5.50	2.25	—	11	7.83	400	0.50	34.49	5.50	27.69	41	0.334
500	0.32	34.50	5.14	1.69	—	10	7.84	500	0.32	34.50	5.14	27.71	39	0.375
1000	0.13	34.51	—	2.16	—	15								

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	28	1130	1960	2	11	NW 2	NW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wat	Type	Amount	
NE	8	1021.0	9.0	7.9	Ci Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	11.83	34.89	6.23	0.29	—	4	8.18	0	11.83	34.89	6.23	26.55	148	0.000
10	11.25	34.84	6.02	0.81	—	4	8.18	10	11.25	34.84	6.02	26.62	142	0.015
20	9.76	34.73	6.37	0.39	—	4	8.18	20	9.76	34.73	6.37	26.80	125	0.028
30	9.73	34.72	6.23	0.59	—	4	8.50	30	9.73	34.72	6.42	26.80	126	0.041
50	9.61	34.71	6.02	1.01	—	3	8.60	50	9.61	34.71	6.37	26.81	125	0.066
75	9.62	34.70	6.37	0.35	—	3	8.44	75	9.62	34.70	6.33	26.80	127	0.097
100	9.63	34.71	6.42	0.48	—	4	8.38	100	9.63	34.71	6.33	26.81	127	0.129
125	9.57	34.71	6.37	1.02	—	4	8.20	125	9.57	34.71	6.29	26.82	126	0.161
150	6.49	34.65	6.33	—	—	7	8.23	150	6.49	34.65	6.14	27.23	86	0.188
200	3.95	34.48	6.33	0.85	—	7	8.01	200	3.95	34.48	6.11	27.40	70	0.227
250	1.96	34.46	6.29	1.65	—	7	7.95	250	1.96	34.46	6.01	27.56	54	0.258
300	1.30	34.47	6.14	1.36	—	9	7.88	300	1.30	34.47	5.93	27.62	48	0.284
400	0.78	34.49	6.11	0.97	—	10	7.33	400	0.78	34.50	5.67	27.67	43	0.330
500	0.40	34.50	6.01	2.45	—	12	7.28	500	0.40	34.50	5.29	27.70	40	0.372
								600	0.12	34.50	5.02	27.72	37	0.411
								700	0.03	34.51	4.85	27.74	36	0.448
								800	0.09	34.51	4.79	27.74	35	0.484
1000	0.11	34.52	4.98	1.46	—	13	7.28	1000	0.11	34.52	4.98	27.73	36	0.556

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	28	0730	2100			NE 3	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	9	1022.0	7.0	6.0	Ci Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dyn. m
0	10.02	34.83	6.44	0.28	—	5	8.10	0	10.02	34.83	6.44	26.84	122	0.000
10	10.02	34.81	6.44	0.30	—	5	8.13	10	10.02	34.81	6.44	26.82	124	0.012
20	9.99	34.81	6.50	0.20	—	5	8.20	20	9.99	34.81	6.50	26.82	123	0.025
30	9.99	34.81	6.77	0.12	—	4	8.20	30	9.99	34.81	6.77	26.82	123	0.037
50	8.73	34.69	6.10	0.28	—	6	8.20	50	8.73	34.69	6.10	26.94	113	0.061
75	7.48	34.62	5.98	0.39	—	6	8.22	75	7.48	34.62	5.98	27.07	101	0.088
100	6.55	34.60	6.13	0.42	—	7	8.28	100	6.55	34.60	6.13	27.19	90	0.112
125	3.41	34.52	6.13	0.75	—	8	8.03	125	3.49	34.52	6.13	27.49	61	0.131
150	2.90	34.51	6.12	0.60	—	8	8.06	150	2.90	34.51	6.12	27.53	57	0.146
200	1.19	34.47	6.02	1.01	—	9	7.91	200	1.19	34.47	6.02	27.63	47	0.172
250	1.00	34.48	5.92	1.09	—	10	7.90	250	1.00	34.48	5.92	27.65	45	0.195
300	0.82	34.48	5.77	1.57	—	11	7.90	300	0.82	34.48	5.77	27.66	44	0.258
400	0.60	34.48	5.33	1.17	—	10	7.86	400	0.60	34.48	5.33	27.67	43	0.262
500	0.40	34.47	5.27	1.32	—	10	7.86	500	0.40	34.47	5.27	27.68	42	0.305

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	28	0140	1760			N 4	N 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	14	1022.0	6.5	5.8	Ci Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.99	34.88	6.54	0.32	—	4	8.00	0	10.99	34.88	6.54	26.70	134	0.000
10	10.98	34.88	6.44	0.33	—	4	8.14	10	10.98	34.88	6.44	26.70	134	0.013
20	10.43	34.81	6.54	0.35	—	4	8.10	20	10.43	34.81	6.54	26.75	130	0.027
30	10.21	34.79	6.35	0.29	—	4	8.14	30	10.21	34.79	6.35	26.77	129	0.040
50	10.04	34.76	6.33	0.49	—	5	8.29	50	10.04	34.76	6.33	26.78	128	0.066
75	9.93	34.75	6.31	0.17	—	4	8.22	75	9.93	34.75	6.31	26.79	128	0.098
100	9.90	34.75	6.33	0.43	—	5	8.20	100	9.90	34.75	6.33	26.79	128	0.130
125	9.60	34.74	6.41	0.52	—	5	8.10	125	9.60	34.74	6.41	26.84	124	0.161
150	9.20	34.70	6.02	0.40	—	6	8.08	150	9.20	34.70	6.02	26.87	121	0.192
200	5.85	34.53	6.15	0.33	—	6	8.10	200	5.85	34.53	6.15	27.22	88	0.245
250	3.58	34.46	6.13	0.33	—	7	7.97	250	3.58	34.46	6.13	27.42	68	0.284
300	1.62	34.48	6.12	0.38	—	8	7.91	300	1.62	34.48	6.12	27.61	50	0.314
400	0.82	34.49	6.05	0.40	—	11	7.92	400	0.82	34.49	6.05	27.67	43	0.361
500	0.53	34.50	5.31	0.91	—	15	7.89	500	0.53	34.50	5.31	27.69	41	0.404
								600	0.31	34.50	4.79	27.71	39	0.444
								700	0.16	34.51	4.50	27.72	37	0.482
								800	0.08	34.51	4.43	27.73	37	0.520
1000	0.13	34.51	4.96	1.57	—	15	7.90	1000	0.13	34.51	4.96	27.72	37	0.594

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	24	1100	110	3	8	NE 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	2	1009.9	22.0	21.3	Al St	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	18.72	33.30	5.86	0.40	0.01	50	8.05	0	18.72	33.30	5.86	23.81	409	0.000
10	13.05	34.21	5.82	0.57	0.02	80	8.02	10	13.05	34.21	5.82	25.79	221	0.032
20	9.17	34.24	6.70	0.67	0.04	60	7.96	20	9.17	34.24	6.70	26.52	152	0.050
30	5.81	34.14	6.70	0.67	0.23	67	7.88	30	5.81	34.14	6.70	26.92	114	0.064
50	4.03	34.08	6.68	0.68	0.29	55	7.83	50	4.03	34.08	6.68	27.07	100	0.085
75	2.93	34.05	6.50	0.69	0.27	58	7.78	75	2.93	34.05	6.50	26.16	92	0.109
100	2.28	34.03	5.80	0.69	0.01	57	7.70	100	2.28	34.03	5.80	27.20	88	0.132

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	24	1215	205	3	8	NE 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	0	1009.9	22.8	21.7	Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4P- μat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	17.91	33.72	6.58	0.49	0.25	46	8.00	0	17.91	33.72	6.58	24.33	360	0.000
10	13.89	34.13	6.58	0.54	0.01	28	7.96	10	13.89	34.13	6.58	25.56	243	0.030
19	8.73	34.25	6.50	0.61	0.17	44	7.96	20	8.38	34.24	6.50	26.64	140	0.049
29	6.31	34.17	6.50	0.63	0.13	49	7.88	30	6.15	34.16	6.50	26.89	117	0.062
49	4.37	34.10	6.50	0.80	0.08	67	7.80	50	4.30	34.09	6.50	27.06	101	0.084
73	3.21	—	6.50	0.56	0.35	69	7.72	75	3.11	34.04	6.49	27.14	94	0.109
97	2.22	34.04	6.24	0.67	0.19	69	7.70	100	2.13	34.04	6.17	27.22	86	0.131
117	1.75	34.06	5.80	0.88	0.08	66	7.60	125	1.62	34.06	5.71	27.27	81	0.152
144	1.39	34.07	5.60	2.38	0.08	70	7.57	150	1.32	34.07	5.57	27.30	78	0.172
190	1.01	34.07	5.44	1.57	0.07	61	7.52							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	24	1450	850	3	12	NE 2	NE 2

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	0	1006.5	20.4	20.0	Ci Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	17.68	33.83	5.60	0.33	0.01	43	8.06	0	17.68	33.83	5.60	24.47	346	0.000
10	13.18	34.13	5.62	0.84	0.01	47	8.02	10	13.18	34.13	5.62	25.70	230	0.029
20	10.80	34.23	5.74	0.93	0.13	73	7.92	20	10.80	34.23	5.74	26.23	180	0.049
30	7.66	34.22	6.40	1.16	0.01	85	7.80	30	7.66	34.22	6.40	26.73	132	0.065
50	3.96	34.07	6.43	0.80	0.00	66	7.80	50	3.96	34.07	6.43	27.07	100	0.088
72	2.52	34.03	6.30	0.64	0.08	76	7.74	75	2.40	34.02	6.30	27.18	89	0.112
96	1.90	34.03	6.30	0.68	0.01	74	7.80	100	1.82	34.03	6.32	27.24	84	0.134
120	1.52	34.07	6.30	0.79	0.00	76	7.82	125	1.47	34.07	6.19	27.29	79	0.154
143	1.33	34.06	5.78	0.72	0.01	78	7.70	150	1.27	34.05	5.74	27.29	79	0.174
186	1.03	34.05	5.76	0.73	0.01	81	7.65	200	0.98	34.05	5.67	27.31	77	0.213
233	0.87	34.08	5.42	1.06	0.03	82	7.65	250	0.76	34.08	5.31	27.35	73	0.251
272	0.62	34.09	5.20	1.14	0.04	85	7.65	300	0.53	34.09	5.13	27.37	72	0.288
366	0.44	34.09	5.10	0.92	0.02	97	7.60	400	0.39	34.09	5.10	27.38	71	0.359
464	0.34	34.10	5.08	0.96	0.01	99	7.54	500	0.31	34.09	5.04	27.38	71	0.430
560	0.30	34.09	4.92	1.25	0.01	119	7.56							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	24	1920	2150			NE 2	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	5	1006.2	23.8	22.9	CiCu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.91	33.13	5.40	0.27	0.01	64	8.00	0	20.91	33.13	5.40	23.12	476	0.000
10	20.87	33.14	5.38	0.27	0.01	47	7.90	10	20.87	33.14	5.38	23.14	474	0.048
20	20.08	33.97	5.00	0.29	0.04	57	7.90	20	20.08	33.97	5.00	23.98	394	0.091
30	18.56	34.18	4.68	0.40	0.01	57	8.10	30	18.56	34.18	4.68	24.53	341	0.128
50	16.23	34.00	4.42	0.47	0.01	68	8.00	50	16.23	34.00	4.42	24.95	301	0.193
68	15.16	34.20	4.82	0.49	0.01	58	7.92	75	15.16	34.23	5.14	25.37	262	0.263
90	14.87	34.28	5.76	0.57	0.00	72	7.83	100	13.78	34.29	5.87	25.71	229	0.325
106	12.86	34.30	5.90	0.59	0.01	76	7.38	125	8.63	34.29	6.18	26.64	141	0.372
127	8.16	34.29	6.20	0.64	0.01	76	7.82	150	4.34	34.17	6.12	27.11	96	0.402
161	3.09	34.11	6.00	0.69	0.06	80	7.80	200	2.31	34.08	5.50	27.24	84	0.448
207	2.43	34.09	5.42	0.97	0.12	74	7.67	250	1.33	34.07	5.34	27.30	78	0.489
249	1.35	34.07	5.34	1.06	0.08	83	7.52	300	0.81	34.07	5.21	27.33	75	0.528
296	0.84	34.07	5.22	1.16	0.08	89	7.50	400	0.53	—	5.09	—	—	—
381	0.57	34.09	5.10	1.25	0.01	89	7.48							
467	0.45	34.12	5.08	1.26	0.01	91	7.48							

St No.	Date	Time	Depth	Water Color.	Water Trans.	Wave	Swell
11	21	2145	2100			SW 1	SW 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
		1007.9	23.0	22.8		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ‰	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.72	33.77	5.00	0.35	0.04	54	8.01	0	22.72	33.77	5.00	23.10	477	0.000
10	22.68	33.77	5.10	0.25	0.01	40	7.98	10	22.68	33.77	5.10	23.11	476	0.048
20	22.59	33.80	5.08	0.33	0.02	47	7.90	20	22.59	33.80	5.08	23.16	472	0.095
30	21.46	33.97	4.96	0.27	0.01	54	7.92	30	21.46	33.97	4.96	23.61	429	0.140
50	17.80	34.16	4.84	0.36	0.08	49	7.90	50	17.80	34.16	4.84	24.76	325	0.216
75	15.41	34.32	4.88	0.45	0.04	68	7.86	75	15.41	34.32	4.88	25.38	161	0.290
100	12.40	34.41	4.92	0.45	0.12	64	7.80	100	12.40	34.41	4.92	26.07	195	0.347
125	8.46	34.30	5.64	0.68	0.13	47	7.80	125	8.46	34.30	5.64	26.68	137	0.390
150	3.98	34.14	5.80	0.93	0.15	70	7.80	150	3.98	34.14	5.80	27.13	94	0.419
198	1.55	34.07	5.90	0.93	0.17	74	7.76	200	1.49	34.07	5.89	27.29	79	0.463
245	0.77	34.09	5.60	0.90	0.08	72	7.67	250	0.73	34.09	5.55	27.35	73	0.501
290	0.64	34.09	5.14	1.14	0.08	76	7.58	300	0.62	34.09	5.11	27.36	73	0.538
385	0.54	34.09	5.14	1.12	0.06	69	7.50	400	0.52	34.09	5.14	27.37	72	0.610
463	0.43	34.10	5.12	1.20	0.05	77	7.48	500	0.37	34.09	5.11	27.38	71	0.681
577	0.30	34.09	5.10	1.36	0.04	72	7.46							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	21	1610	1740			SW 4	SW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Day	Wet	Type	Amount	
SW	4	1007.0	24.2	23.8	Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.05	34.09	5.12	0.39	—	75	8.00	0	22.05	34.09	5.12	23.53	436	0.000
10	22.03	34.10	5.16	0.27	0.01	50	8.13	10	22.03	34.10	5.16	23.55	435	0.044
20	22.00	34.11	5.20	0.52	0.01	51	7.96	20	22.00	34.11	5.20	23.56	434	0.087
30	20.67	34.10	5.40	0.31	0.00	64	7.88	30	20.67	34.10	5.40	23.92	400	0.129
49	17.28	34.22	5.90	0.80	—	77	7.80	50	17.16	34.22	5.88	24.90	306	0.200
74	15.28	34.33	5.10	0.67	0.01	71	7.80	75	15.73	34.33	5.07	25.43	256	0.270
98	14.34	34.44	4.62	0.84	0.19	62	7.83	100	14.24	34.44	4.36	25.73	227	0.332
123	12.52	34.44	4.96	0.75	0.01	54	7.86	125	12.24	34.43	5.01	26.12	190	0.384
149	8.73	34.32	5.60	0.69	0.01	62	7.80	150	8.61	34.31	5.62	26.66	139	0.426
188	5.14	34.16	6.22	0.69	0.01	56	7.72	200	4.19	34.12	6.29	27.09	98	0.487
226	2.57	34.07	6.30	0.80	0.01	55	7.90	250	1.78	34.07	6.14	27.27	81	0.532
263	1.53	34.08	6.02	0.94	0.02	76	7.62	300	1.04	34.09	5.71	27.33	75	0.572
351	0.79	34.10	5.36	1.09	0.02	72	7.50	400	0.60	34.10	5.27	27.37	72	0.645
445	0.52	34.10	5.28	1.28	0.01	85	7.45	500	0.41	34.10	5.27	27.38	71	0.716
542	0.37	34.11	5.28	1.30	0.01	90	7.40							

102선 해 양 관 측 성 적

Oceanographic Data, Line 102

3월(March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color.	Water Trans.	Wave	Swell
04	27	0345	57			NE0	NE0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	08	22.0	7.5	7.2	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.06	34.69	5.90	1.54	—	6	8.22	0	13.06	34.69	5.90	26.16	186	0.000
10	12.88	34.69	5.76	1.02	—	6	8.23	10	12.88	34.69	5.76	26.20	183	0.018
20	11.84	34.76	5.82	0.83	—	7	8.19	20	11.84	34.76	5.82	26.45	159	0.036
30	10.18	34.80	5.82	0.36	—	8	8.18	30	10.18	34.80	5.82	26.78	127	0.050
50	6.78	34.63	5.42	1.08	—	9	8.12	50	6.78	34.63	5.42	27.18	90	0.072
57	5.36	34.58	5.43	1.12	—	9	8.12							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	27	0450	170			NEO	NE0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	6	1022.5	7.6	6.2	Cu	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dyn. m
0	14.25	34.91	5.69	0.75	—	5	7.98	0	14.25	34.91	5.69	26.08	193	0.000
10	14.25	34.91	5.69	0.50	—	7	8.11	10	14.25	34.91	5.69	26.08	193	0.019
20	13.83	34.92	5.67	0.43	—	6	8.18	20	13.83	34.92	5.67	26.18	185	0.038
30	13.64	34.90	5.67	0.32	—	6	8.20	30	13.64	34.90	5.67	26.20	183	0.057
50	12.81	34.85	5.54	0.48	—	7	8.18	50	12.81	34.85	5.54	26.33	171	0.092
75	8.49	34.73	5.34	0.61	—	8	8.04	75	8.49	34.73	5.34	27.01	107	0.127
100	2.21	34.51	5.92	1.56	—	9	7.99	100	2.21	34.51	5.92	27.58	51	0.147
125	1.32	34.48	6.00	0.55	—	9	7.94	125	1.32	34.48	6.00	27.63	47	0.159
150	1.18	34.48	5.96	0.79	—	10	7.90	150	1.18	34.48	5.96	27.64	46	0.171
170	1.19	34.48	6.00	0.88	—	10	7.90							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	27	0715	1500	3	18	NW1	NW1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1023.0	7.5	6.8	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.55	—	5.71	—	—	—	7.90	0	13.55	—	5.71	—	—	—
10	13.55	—	5.61	0.59	—	6	7.84	10	13.55	—	5.61	—	—	—
20	13.55	—	5.71	0.57	—	6	7.84	20	13.55	—	5.71	—	—	—
30	13.57	—	5.71	0.64	—	6	8.00	30	13.57	—	5.71	—	—	—
50	13.55	—	5.73	0.27	—	4	8.09	50	13.55	—	5.73	—	—	—
75	13.16	—	5.71	0.23	—	5	8.10	75	13.16	—	5.71	—	—	—
100	12.94	—	5.71	0.25	—	4	8.10	100	12.94	—	5.71	—	—	—
125	10.92	—	5.61	0.35	—	7	7.90	125	10.92	—	5.61	—	—	—
150	5.87	—	5.81	0.64	—	8	7.90	150	5.87	—	5.81	—	—	—
200	1.34	—	5.90	1.21	—	9	7.74	200	1.34	—	5.90	—	—	—
250	0.77	—	5.81	1.38	—	12	7.80	250	0.77	—	5.81	—	—	—
300	0.67	—	5.73	1.56	—	11	7.80	300	0.67	—	5.73	—	—	—
400	0.64	—	5.71	1.09	—	11	7.54	400	0.64	—	5.71	—	—	—
500	0.40	—	5.61	0.72	—	12	7.60	500	0.40	—	5.61	—	—	—
								600	0.22	—	5.50	—	—	—
								700	0.10	—	5.37	—	—	—
								800	0.05	—	5.23	—	—	—
1000	0.14	—	4.92	1.06	—	16	7.68	1000	0.14	—	4.92	—	—	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	27	1205	1710	3	12	NW 1	W 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	9	1024.0	8.5	6.9	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	11.91	34.91	6.17	0.57	—	5	7.84	0	11.91	34.91	6.17	26.56	148	0.000
10	11.67	34.91	6.10	0.96	—	5	7.99	10	11.67	34.91	6.10	26.60	144	0.015
20	11.67	34.92	6.08	0.92	—	5	8.04	20	11.67	34.92	6.08	26.61	144	0.029
30	11.65	34.92	6.06	0.50	—	5	8.08	30	11.65	34.92	6.06	26.61	144	0.044
50	11.35	34.90	6.09	0.64	—	5	8.10	50	11.35	34.90	6.09	26.65	140	0.072
75	10.25	34.82	6.23	0.62	—	4	8.08	75	10.25	34.82	6.23	26.79	128	0.106
100	10.51	—	6.23	1.13	—	4	8.10	100	10.51	34.62	6.23	26.59	147	0.140
125	3.81	34.46	6.18	1.18	—	5	7.86	125	3.81	34.46	6.18	27.40	70	0.167
150	2.40	34.46	6.10	1.20	—	8	7.22	150	2.40	34.46	6.10	27.53	57	0.183
200	1.39	34.48	5.92	1.25	—	10	7.30	200	1.39	34.48	5.92	27.62	48	0.210
250	1.01	34.48	5.82	1.31	—	11	7.30	250	1.01	34.48	5.82	27.65	45	0.233
300	0.80	34.48	5.70	1.24	—	9	7.32	300	0.80	34.48	5.70	27.66	44	0.256
400	0.45	34.49	5.35	1.40	—	11	7.20	400	0.45	34.49	5.35	27.69	41	0.299
500	0.30	34.50	5.09	1.57	—	13	7.19	500	0.30	34.50	5.09	27.71	39	0.339
								600	0.19	34.50	4.92	27.72	38	0.378
								700	0.12	34.51	4.84	27.73	37	0.416
								800	0.09	34.51	4.85	27.73	37	0.454
900	0.11	34.51	4.95	1.70	—	16	7.22							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	27	1730	1700	4	13	E 2	E 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	6	1022.5	8.2	8.0	Cu	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	11.12	34.86	6.10	0.60	—	6	7.99	0	11.12	34.86	6.10	26.66	138	0.000
10	11.02	34.86	5.15	0.53	—	5	8.11	10	11.02	34.86	6.23	26.68	137	0.014
20	10.44	34.83	6.33	0.49	—	4	8.20	20	10.44	34.83	6.33	26.76	129	0.027
30	10.47	34.83	6.41	0.37	—	6	8.18	30	10.47	34.83	6.41	26.76	130	0.040
50	10.12	34.82	6.48	0.36	—	6	8.17	50	10.12	34.82	6.48	26.81	125	0.066
75	8.27	34.70	6.49	0.35	—	7	8.15	75	8.27	34.70	6.49	27.02	106	0.095
100	4.62	34.51	6.52	1.37	—	6	8.10	100	4.62	34.51	6.52	27.35	74	0.117
125	2.61	34.43	6.71	0.80	—	6	8.08	125	2.61	34.43	6.71	27.49	61	0.134
150	2.41	34.50	6.41	0.45	—	6	8.08	150	2.41	34.50	6.41	27.56	54	0.149
200	2.30	34.45	6.25	0.48	—	8	8.00	200	2.30	34.45	6.25	27.53	57	0.177
250	1.28	34.45	5.42	0.49	—	9	7.88	250	1.28	34.45	5.42	27.61	49	0.204
300	0.78	34.45	5.50	0.50	—	12	7.79	300	0.78	34.45	5.50	27.64	46	0.228
400	0.42	34.45	5.28	0.71	—	14	7.72	400	0.42	34.45	5.28	27.66	44	0.273
500	0.99	34.45	5.40	1.71	—	11	7.70	500	0.00	34.45	5.40	27.68	41	0.316

St No.	Date	Time	Depth	Water Color	Water Trans	Wave	Swell
11	27	2130	1570			W 2	W 2

Wind		Baro	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1023.5	7.2	6.8	Cu	2	Time

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-S μgat/L	PH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dynam.
0	11.01	34.93	6.02	0.26	—	5	8.10	0	11.01	34.93	6.02	26.74	131	0.000
10	10.96	34.94	6.23	0.36	—	6	8.14	10	10.96	34.94	6.23	26.76	130	0.013
20	10.99	34.85	—	0.37	—	5	8.10	20	10.99	34.85	—	26.68	137	0.026
30	10.15	34.81	6.17	0.37	—	4	8.14	30	10.15	34.81	6.17	26.80	126	0.040
50	9.45	34.78	—	0.37	—	4	8.20	50	9.45	34.78	—	26.89	117	0.064
75	9.06	34.65	6.13	0.65	—	4	8.22	75	9.06	34.65	6.13	26.85	121	0.094
100	6.51	34.95	6.10	0.68	—	6	8.20	100	6.51	34.57	6.10	27.17	91	0.121
125	4.92	34.51	—	0.52	—	7	8.10	125	4.92	34.51	—	27.32	77	0.142
150	4.48	34.39	6.29	0.48	—	4	8.08	150	4.48	34.39	6.29	27.27	82	0.162
200	3.66	34.44	5.94	1.12	—	5	8.10	200	3.66	34.44	5.94	27.40	70	0.200
250	1.23	34.48	1.25	0.55	—	9	7.91	250	1.23	34.48	—	27.63	47	0.230
300	0.78	34.49	0.95	0.92	—	11	7.92	300	0.78	34.49	—	27.67	43	0.253
400	0.43	34.50	0.72	0.72	—	11	7.91	400	0.43	34.50	—	27.70	40	0.295
500	0.33	34.51	1.07	1.07	—	12	7.90	500	0.33	34.51	—	27.71	39	0.334
								600	0.25	34.51	—	27.72	38	0.373
								700	0.19	34.52	—	27.73	37	0.411
								800	0.15	34.52	—	27.73	37	0.448
1000	0.13	34.51	—	2.16	—	15	7.90	1000	0.13	34.51	—	27.72	37	0.523

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	22	1115	210	04	13	NW I	NW I

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	1	1009.0	20.0	19.8		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	19.21	33.89	6.00	0.37	0.01	47	8.04	0	19.21	33.89	6.00	24.14	378	0.000
10	12.68	34.13	6.06	0.53	—	41	8.00	10	12.68	34.13	6.06	25.80	220	0.030
20	7.86	34.18	5.86	0.68	0.01	35	7.95	20	7.86	34.18	5.86	26.67	138	0.048
30	5.36	34.11	5.50	0.56	0.01	78	7.93	30	5.36	34.11	5.50	26.95	111	0.060
50	4.22	34.09	5.50	0.72	0.01	65	7.88	50	4.22	34.09	5.50	27.06	101	0.082
75	3.02	34.06	6.42	0.69	0.01	76	7.84	75	3.02	34.06	6.42	27.16	92	0.106
100	2.30	34.03	6.56	0.85	0.08	57	7.78	100	2.30	34.03	6.56	27.19	88	0.129
125	1.70	34.05	6.26	0.87	0.01	58	7.78	125	1.70	34.05	6.26	27.26	82	0.150
150	1.41	34.06	5.90	0.89	0.01	78	7.78	150	1.41	34.06	5.90	27.28	80	0.170
200	1.24	34.07	5.60	0.96	—	151	7.70	200	1.24	34.07	5.60	27.30	78	0.210

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	22	0700	1340	4	15	E 1	E 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	1	1008.3	21.3	21.0		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	20.55	33.05	5.10	0.33	0.01	51	7.90	0	20.55	33.05	5.10	23.15	472	0.000
10	18.97	33.27	5.14	0.27	0.04	63	7.85	10	18.97	33.27	5.14	23.73	418	0.045
20	17.86	33.95	5.18	0.27	0.15	63	7.82	20	17.86	33.95	5.18	24.52	342	0.083
30	15.83	33.96	5.18	0.29	0.00	55	7.80	30	15.83	33.96	5.18	25.01	296	0.115
50	14.83	34.11	5.18	0.35	0.08	57	7.80	50	14.83	34.11	5.18	25.34	264	0.171
74	14.81	34.27	5.20	0.47	0.08	51	7.78	75	14.74	34.27	5.20	25.49	250	0.236
99	11.48	34.37	5.22	0.48	0.08	55	7.76	100	11.25	34.36	5.22	26.26	177	0.289
115	7.59	34.26	5.30	0.56	0.08	53	7.70	125	5.23	34.16	5.65	27.01	106	0.325
137	2.96	34.06	6.10	0.56	0.02	49	7.62	150	1.99	34.03	6.25	27.22	85	0.350
165	1.70	34.05	6.28	0.48	0.04	62	7.60	200	1.54	34.05	6.40	27.27	81	0.392
202	1.56	34.05	6.40	0.59	0.01	60	7.50	250	1.04	34.06	6.28	27.31	77	0.431
246	1.07	34.06	6.30	0.67	0.21	57	7.50	300	0.79	34.07	6.06	27.34	75	0.470
330	0.73	34.08	5.92	0.92	0.02	64	7.42	400	0.56	34.08	5.71	27.36	73	0.543
424	0.52	34.09	5.64	0.93	0.01	73	7.37	500	0.40	34.09	5.37	27.38	71	0.615
519	0.38	34.10	5.30	0.83	0.01	76	7.36							

St No.	Date	Time	Depth	Water Color	Water Trans	Wave	Swell
09	24	0337	1880			NE 2	NE 2

Wind		Bo a .	Air Temp.		Cloud		Weather
De ection	Frce		D y	Wet	Type	Amount	
NE	5	1008.2	24.9	23.8	Al St	2	B

OBSERVED								INTERPOLATED				CALCU ATED		
Z m	T ℃	S ‰	O_2 ‰	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 ‰	σt g/L	$\frac{d\tau}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	22.32	33.21	5.08	0.27	—	76	8.08	0	22.32	33.21	5.08	22.79	507	0.00
10	22.22	33.25	5.00	0.33	0.01	63	8.07	10	22.22	33.25	5.00	22.85	502	0.05
19	19.32	33.58	4.48	0.40	0.00	53	8.00	20	19.11	33.58	4.48	23.93	398	0.09
29	17.76	33.56	4.60	0.44	0.01	66	7.98	30	17.67	33.57	4.61	24.28	365	0.134
49	16.63	33.95	4.76	0.27	0.01	60	7.96	50	16.56	33.95	4.78	24.84	312	0.202
73	15.48	34.13	5.18	0.45	0.01	64	7.90	75	15.46	34.16	5.20	25.24	274	0.275
89	15.40	34.36	5.32	0.29	0.23	62	7.87	100	15.26	34.44	5.57	25.51	248	0.341
111	14.62	34.48	5.82	0.29	0.12	66	7.86	125	11.92	34.41	5.92	26.17	185	0.396
137	9.36	34.33	5.90	0.59	0.19	67	7.85	150	7.79	34.25	5.75	26.74	131	0.437
162	6.66	33.89	5.58	0.59	0.17	66	7.82	200	2.82	34.06	5.47	27.18	90	0.493
209	2.14	34.05	5.46	0.60	0.19	67	—	250	1.25	34.08	5.18	27.31	77	0.53
243	1.35	34.08	5.20	0.97	0.27	74	7.75	300	0.82	34.08	5.15	27.34	75	0.573
328	0.76	34.08	5.18	1.00	0.24	75	7.72	400	0.51	34.09	5.02	27.37	72	0.646
419	0.47	34.10	4.98	1.12	0.17	62	7.70	500	0.31	—	4.90	—	—	—
518	0.29	—	4.90	0.96	0.02	61	7.70							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
11	25	0425	1780			N 4	N 4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1000.9	24.9	23.7	CiCu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	22.70	33.96	4.58	0.19	0.19	57	8.04	0	22.70	33.96	4.58	23.25	463	0.000
10	22.71	33.94	4.48	0.13	0.06	46	8.00	10	22.71	33.94	4.48	23.23	465	0.046
20	22.56	33.91	4.48	0.19	0.19	37	7.96	20	22.56	33.91	4.48	23.25	463	0.093
30	17.72	34.35	5.20	0.16	0.17	43	7.91	30	17.72	34.35	5.20	24.86	310	0.132
50	16.32	34.46	5.22	0.23	0.27	75	3.78	50	16.32	34.46	5.22	25.28	270	0.190
73	15.73	34.45	5.46	0.29	0.13	49	7.70	75	15.54	34.44	5.48	25.44	255	0.256
97	12.78	34.39	5.68	0.32	0.23	49	7.70	100	12.31	34.37	5.68	26.06	196	0.313
121	9.10	34.25	5.66	0.36	0.17	50	7.70	125	8.61	34.23	5.66	26.60	145	0.356
146	6.38	34.17	5.64	0.40	0.17	51	7.70	150	5.95	34.15	5.60	26.91	115	0.389
184	2.97	34.05	5.28	0.67	0.17	52	7.63	200	2.23	34.03	5.26	27.20	88	0.440
223	1.60	34.04	5.28	0.93	0.17	55	—	250	1.12	34.05	5.22	27.30	78	0.482
271	0.92	34.06	5.16	1.20	0.17	57	7.60	300	0.73	34.06	5.15	27.33	75	0.521
371	0.55	34.06	5.14	1.13	0.16	63	7.50	400	0.46	34.06	5.10	27.35	74	0.595
452	0.35	34.08	5.02	1.01	0.15	72	7.43	500	0.31	34.08	4.99	27.37	72	0.667
548	0.33	34.08	5.00	1.52	0.01	91	7.42							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	25	0845	1655	4	17	E 3	E 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	4	1006.6	24.2	24.2	CiCu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt$ cm^3/g	△D dyn. m
0	22.63	34.12	4.48	0.29	0.01	77	8.08	0	21.63	34.12	4.48	23.67	423	0.000
10	22.56	34.09	4.50	0.21	0.01	40	8.03	10	22.56	34.09	4.50	23.39	450	0.044
20	22.47	34.09	4.46	0.27	0.01	47	8.00	20	22.47	34.09	4.46	23.42	448	0.089
30	20.33	34.14	4.38	0.45	0.02	43	8.00	30	20.33	34.14	4.38	24.04	388	0.131
50	15.22	34.22	5.02	0.53	0.01	56	7.98	50	15.22	34.22	5.02	25.34	264	0.196
75	14.95	34.40	5.16	0.47	—	89	7.90	75	14.95	34.40	5.16	25.54	245	0.260
99	13.42	34.50	5.26	0.40	0.01	34	7.90	100	13.34	34.49	5.27	25.95	206	0.317
124	11.20	34.42	5.42	0.28	0.06	24	7.82	125	11.07	34.41	5.43	26.33	170	0.365
139	9.29	34.33	5.54	0.27	0.06	39	7.82	150	7.93	34.23	5.55	26.70	135	0.404
168	9.38	34.09	5.52	0.06	0.06	43	7.80	200	3.42	34.09	5.52	27.15	93	0.462
218	2.48	34.14	5.50	0.61	0.12	49	7.76	250	2.08	34.10	5.32	27.27	81	0.506
250	2.08	34.10	5.32	0.92	0.08	46	7.68	300	1.44	34.08	5.27	27.30	78	0.546
342	0.98	34.09	5.28	1.00	0.02	57	7.63	400	0.60	34.08	5.11	27.36	73	0.622
433	0.48	34.09	5.02	1.25	0.02	63	7.57	500	0.36	34.09	4.98	27.37	72	0.694
525	0.38	34.09	5.00	1.26	0.02	67	7.50							

209선 해 양 관 측 성 적

Oceanographic Data, Line 209

3월(March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	27	0130	65			W 2	W 1

Wind		Baro.	Air TemP.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	6	1022.0	7.5	7.3	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.50	34.71	4.38	1.09	—	6	8.32	0	13.50	34.71	—	26.09	193	0.000
10	13.47	34.72	5.69	0.88	—	6	8.31	10	13.47	34.72	5.69	26.10	192	0.019
20	13.49	34.83	5.56	0.55	—	6	8.16	20	13.49	34.83	5.56	26.18	185	0.038
30	12.50	—	5.48	1.17	—	6	8.23	30	12.50	34.85	5.48	26.40	164	0.056
50	12.53	34.81	5.44	0.80	—	6	8.24	50	12.53	34.81	5.44	26.36	168	0.089
65	11.67	34.81	5.31	0.79	—	8	8.23							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	26	2345	184			W 2	W 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1023.0	7.8	6.4	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/l	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	13.68	34.81	5.61	0.56	—	7	8.09	0	13.68	34.81	5.61	26.13	189	0.000
10	13.67	34.80	3.88	0.93	—	6	8.07	10	13.67	34.80	5.51	26.12	190	0.019
20	13.69	34.79	4.03	1.17	—	7	8.19	20	13.69	34.79	5.43	26.11	191	0.038
30	13.49	34.77	4.13	1.17	—	7	8.26	30	13.49	34.77	5.37	26.13	189	0.057
50	13.18	34.84	4.05	1.47	—	7	8.25	50	13.18	34.84	5.33	26.25	179	0.094
75	10.27	34.78	4.40	1.25	—	7	8.23	75	10.27	34.78	5.48	26.75	131	0.133
100	4.67	34.64	4.28	1.21	—	10	10.17	100	4.67	34.64	5.74	27.45	65	0.158
125	1.49	34.52	5.98	1.21	—	11	8.08	125	1.49	34.52	5.98	27.65	45	0.171
150	1.02	34.50	5.73	1.28	—	11	8.02	150	1.02	34.50	5.73	27.66	44	0.183
184	0.97	34.49	5.71	1.70	—	12	7.99							

남 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS SOUTHERN WATERS

1 9 6 6

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	26	2050	215			S2	W 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	7	1024.1	8.0	6.2	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	14.49	35.05	5.29	1.27	—	6	8.29	0	14.99	35.05	5.29	26.03	198	0.00
10	15.10	35.05	5.29	1.67	—	6	8.23	10	15.10	35.05	5.29	26.01	201	0.02
20	15.14	35.06	5.35	1.32	—	6	8.31	20	15.14	35.06	5.35	26.01	201	0.04
30	15.06	35.06	5.35	1.25	—	7	8.27	30	15.06	35.06	5.35	26.02	200	0.06
50	15.05	35.06	5.17	1.08	—	6	8.24	50	15.05	34.06	5.17	26.03	200	0.10
75	14.02	34.94	5.33	1.32	—	7	8.29	75	14.02	34.94	5.33	26.15	188	0.14
100	13.17	34.86	5.47	1.52	—	7	8.24	100	13.17	34.86	5.47	26.27	174	0.19
125	3.00	34.65	5.38	1.60	—	9	8.12	125	3.00	34.65	5.38	26.63	48	0.225
150	1.20	34.65	5.34	1.86	—	11	8.03	150	1.20	34.65	5.34	26.77	33	0.233
215	0.76	34.50	5.31	—	—	12	7.98	200	0.31	34.55	5.31	26.75	35	0.251

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	26	1905	176	2	17	NE 2	W 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	7	1022.0	7.5	5.8	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	14.18	35.02	5.67	1.04	—	4	8.16	0	14.18	35.02	5.67	26.18	184	0.000
10	14.21	35.02	5.52	1.04	—	4	8.20	10	14.21	35.02	5.52	26.18	185	0.018
20	14.20	35.02	5.42	0.92	—	5	8.24	20	14.20	35.02	5.42	26.18	185	0.037
30	14.16	35.02	5.42	2.05	—	5	8.31	30	14.16	35.02	5.42	26.19	184	0.055
50	14.18	35.01	5.42	1.54	—	5	8.28	50	14.18	35.01	5.42	26.17	186	0.093
75	14.15	35.01	5.50	1.20	—	5	8.24	75	14.15	35.01	5.50	26.18	186	0.139
100	14.17	35.02	5.54	1.56	—	5	9.26	100	14.17	35.02	5.54	26.18	186	0.186
125	14.09	35.02	5.51	1.25	—	5	8.13	125	14.09	35.02	5.51	26.20	185	0.232
150	13.69	34.94	5.48	2.13	—	6	8.22	150	13.69	34.94	5.48	26.22	184	0.279
176	9.86	34.82	5.40	0.62	—	6	8.29							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	26	1505	153	3	11	SW0	SW1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	7	1022.0	9.2	6.3	Al St	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	13.80	34.98	5.71	2.05	—	5	8.30	0	13.80	34.98	5.71	26.23	179	0.000
10	13.58	35.00	5.71	0.98	—	5	8.24	10	13.58	35.00	5.71	26.29	174	0.018
20	13.58	35.02	5.71	1.49	—	6	8.39	20	13.58	35.02	5.71	26.31	172	0.035
30	13.58	34.98	5.69	0.87	—	6	8.25	30	13.58	34.98	5.69	26.28	176	0.052
50	13.51	34.99	5.61	0.01	—	6	8.12	50	13.51	34.99	5.61	26.30	174	0.088
75	13.43	34.99	5.61	4.50	—	6	8.19	75	13.43	34.99	5.61	26.32	173	0.131
100	13.51	34.99	5.59	3.06	—	8	8.25	100	13.51	34.99	5.59	26.30	175	0.175
125	11.39	34.85	5.54	2.69	—	7	8.24	125	11.39	34.85	5.54	26.61	147	0.215
153	9.01	34.77	5.94	2.42	—	6	8.02	150	9.26	34.77	5.87	26.92	117	0.248

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
12	26	1108	140	2	12	NE 1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	7	1021.1	9.4	7.2	CiCu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	14.96	35.06	5.61	0.79		5	8.30	0	14.96	35.06	5.61	26.05	197	0.000
10	14.92	35.07	5.59	1.32		5	8.32	10	14.92	35.07	5.59	26.06	196	0.020
20	14.85	35.05	5.52	1.19		6	8.34	20	14.85	35.05	5.52	26.06	196	0.039
30	14.85	35.06	5.50	0.65		6	8.38	30	14.85	35.06	5.50	26.70	195	0.059
50	14.51	35.03	5.40	2.04		6	8.40	50	14.51	35.03	5.40	26.12	191	0.098
75	14.27	35.03	5.56	1.25		6	8.34	75	14.27	35.03	5.56	26.17	187	0.145
100	14.28	35.03	5.54	1.45		8	8.31	100	14.28	35.03	5.54	26.17	188	0.192
125	14.17	34.98	5.52	1.84		7	8.34	125	14.17	34.98	5.52	26.15	190	0.239
140	12.20	34.91	5.50	1.14		6	8.34							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
13	26	0940	110	2	17	W 3	W 2

Wind		Bar o	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	8	1022.2	8.7	6.2	Ci Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	14.52	35.05	5.63	0.19	5	8.32	—	0	14.52	35.05	5.63	26.13	188	0.000
10	14.51	35.05	5.61	0.31	6	8.31	—	10	14.51	35.05	5.61	26.14	189	0.019
20	14.48	35.05	5.59	0.92	6	8.37	—	20	14.48	35.05	5.59	26.14	188	0.038
30	14.52	35.05	5.59	1.13	7	8.38	—	30	14.52	35.05	5.59	26.13	189	0.057
50	14.46	35.05	5.56	1.58	6	8.31	—	50	14.46	35.05	5.56	26.15	189	0.075
75	14.50	35.05	5.50	0.67	6	8.28	—	75	14.50	35.05	5.50	26.14	190	0.142
110	14.50	35.04	5.50	1.42	6	8.31	—	100	14.50	35.05	5.49	26.13	192	0.190

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	26	1045	64	5	6	N 2	N 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1010.0	15.4	14.9	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm/g^3	△D dyn. m
0	11.10	34.09	5.28	0.59	0.31	61	7.94	0	11.10	34.09	5.28	26.07	195	0.000
10	9.49	34.09	5.76	0.56	0.27	35	7.88	10	9.49	34.09	5.76	26.35	168	0.018
20	9.19	34.12	5.82	0.56	0.12	47	7.85	20	9.19	34.12	5.82	26.42	162	0.035
30	8.66	34.13	5.80	0.48	0.15	37	7.80	30	8.66	34.13	5.80	26.51	153	0.051
50	5.37	34.09	5.40	—	—	—	—	50	5.37	34.09	5.40	26.93	113	0.077

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	26	0935	150	08	04	SW 3	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1010.0	18.5	17.9	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	14.32	33.91	5.36	0.72	0.01	50	—	0	14.32	33.91	5.36	25.30	268	0.000
9	12.93	34.04	4.64	0.08	0.01	50	7.83	10	12.75	34.05	4.62	25.73	227	0.025
18	11.48	34.17	4.60	0.67	0.06	47	7.83	20	11.30	34.18	4.58	26.10	192	0.046
27	10.86	34.21	4.54	—	0.12	—	7.83	30	10.71	34.21	4.55	26.23	179	0.064
45	9.54	34.20	4.80	0.83	0.19	47	7.74	50	8.53	34.17	5.05	26.56	148	0.097
67	4.97	34.07	5.90	0.75	0.19	45	7.62	75	4.00	34.04	6.09	27.05	102	0.129
89	2.94	34.03	6.24	0.80	0.15	43	7.62	100	2.50	34.02	6.27	27.17	90	0.153
111	2.29	34.02	6.20	0.71	0.13	48	7.54	125	2.12	34.02	—	27.20	88	0.175
125	2.12	34.02	—	0.81	0.13	48	7.50							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	26	0730	200	7	5	SW 2	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S W	2	1009.5	23.1	22.0	Ci Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.39	32.69	5.70	0.53	0.08	56	8.00	0	20.39	32.69	5.70	22.92	494	0.000
9	19.88	32.67	5.74	0.53	0.08	47	8.00	10	19.57	32.73	5.73	23.17	471	0.048
19	16.50	33.38	5.56	0.64	0.10	34	8.00	20	16.25	33.43	5.54	24.50	344	0.089
28	14.86	33.73	5.32	0.40	0.06	37	7.98	30	14.75	33.76	5.20	25.09	288	0.121
47	14.81	33.91	4.30	0.87	0.15	57	7.80	50	14.77	33.95	4.31	25.23	275	0.177
70	14.12	34.19	4.80	0.75	0.27	56	7.75	75	13.76	34.21	4.91	25.65	235	0.241
94	11.92	34.26	5.30	0.77	0.08	61	7.52	100	11.18	34.27	5.39	26.20	183	0.294
117	8.82	34.28	5.62	0.80	0.01	64	7.50	125	7.51	34.25	5.75	26.78	128	0.333
142	4.92	34.17	6.06	1.04	0.01	63	7.40	150	4.01	34.13	—	27.12	95	0.362
179	2.09	34.04	—	0.87	0.01	83	7.40							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	26	0540	215			E 2	E 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1009.0	25.1	24.0	Ci Cu	2	

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	23.10	32.37	5.18	0.33	0.04	47	7.92	0	23.10	32.37	5.18	21.94	589	0.000
10	23.07	32.46	5.20	0.40	0.15	37	7.93	10	23.07	32.46	5.20	22.01	582	0.059
20	21.54	33.61	5.54	0.48	0.12	57	7.94	20	21.54	33.61	5.54	23.31	458	0.111
30	20.45	34.04	5.46	0.45	0.08	49	7.86	30	20.45	34.04	5.46	23.93	399	0.153
50	17.14	34.77	5.46	0.49	0.01	50	7.85	50	17.14	34.39	5.46	25.03	294	0.223
71	15.48	34.76	5.40	0.72	0.01	66	7.78	75	15.38	34.59	5.25	25.60	240	0.290
95	15.22	34.08	4.50	0.92	0.23	69	7.78	100	15.26	34.53	4.46	25.58	242	0.351
119	14.79	34.32	4.48	0.77	0.12	73	7.76	125	14.09	34.33	4.47	25.67	233	0.411
143	11.22	34.35	4.44	0.81	0.09	70	7.75	150	9.99	34.34	4.43	26.46	158	0.461
190	1.32	34.12	4.40	0.90	0.06	80	7.74							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	25	06.8	150			NE 1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	2	1006.6	24.8	24.6	Ci–Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	23.79	33.11	4.96	0.87	0.04	51	8.00	0	23.79	33.11	4.96	22.30	554	0.000
10	23.28	33.87	5.08	0.33	0.12	40	8.00	10	23.28	33.87	5.08	23.02	486	0.052
20	22.68	34.00	5.10	0.32	0.06	44	8.00	20	22.68	34.00	5.10	23.29	460	0.099
30	20.39	34.18	5.32	0.31	0.01	41	8.00	30	20.39	34.18	5.32	24.03	387	0.142
50	17.66	34.37	5.64	0.27	0.01	37	7.98	50	17.66	34.37	5.64	24.89	307	0.211
75	15.97	34.45	5.40	0.59	0.01	49	7.97	75	15.97	34.45	5.40	25.35	263	0.283
100	13.76	34.41	4.88	0.81	0.31	70	7.85	100	13.76	34.41	4.88	25.80	221	0.344
130	6.98	34.22	4.80	0.93	0.19	62	7.80	125	8.42	34.26	4.77	26.65	140	0.390

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
11	25	2055	140			WS W2	WSW1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
WSW	4	1001.0	26.0	25.3	Ci	2	

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.32	33.30	5.02	0.31	0.06	48	8.03	0	25.32	33.30	5.02	21.98	584	0.000
10	25.35	33.72	4.90	0.27	0.01	43	8.02	10	25.35	33.27	4.90	21.95	588	0.059
20	23.48	33.60	5.52	0.20	0.10	39	8.02	20	23.48	33.60	5.53	22.76	511	0.114
30	22.11	34.09	5.60	0.27	0.01	60	8.02	30	22.11	34.09	5.60	23.52	428	0.161
50	19.08	34.18	5.40	0.27	0.04	51	8.07	50	19.08	34.18	5.40	24.39	355	0.241
74	16.94	34.32	5.18	0.45	0.01	73	7.92	75	16.90	34.32	5.15	25.04	293	0.322
99	16.27	34.34	4.46	0.48	0.01	47	7.92	100	16.23	34.34	4.45	25.21	277	0.394
124	15.23	34.34	4.42	0.33	0.01	68	7.50							

208선 해 양 관 측 성 적

Oceanographic Data, Lin 208

3월 (March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	24	0815	69	4	9	NE2	NE2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	8	1012.0	8.4	6.3	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	Hp	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. n
0	13.85	34.99	6.19	0.56	—	6	8.22	0	13.85	34.99	6.19	25.23	179	0.000
10	13.65	34.98	6.05	0.37	—	6	8.42	10	13.65	34.98	6.05	26.26	176	0.018
20	13.79	34.96	5.55	0.55	—	7	8.52	20	13.79	34.96	5.55	26.22	181	0.036
30	13.81	34.98	5.22	0.34	—	8	8.48	30	13.81	34.98	5.22	26.23	180	0.054
50	13.00	34.99	5.70	0.50	—	9	8.41	50	13.00	34.99	5.70	26.40	164	0.088
69	12.21	34.85	5.40	0.85	—	7	8.25							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	24	1010	122	3	15	NE3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	9	1010.5	8.2	7.9	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	14.18	34.99	5.39	0.59	—	6	8.29	0	14.18	34.99	5.39	26.16	186	0.000
10	14.20	34.99	5.67	0.50	—	5	8.31	10	14.20	34.99	5.67	26.16	187	0.019
20	14.20	34.99	5.71	0.32	—	4	8.33	20	14.20	34.99	5.71	26.16	187	0.037
30	14.04	34.98	5.68	0.26	—	6	8.34	30	14.04	34.98	5.68	26.18	185	0.056
50	13.66	34.93	5.60	0.54	—	7	8.17	50	13.66	34.93	5.60	26.22	181	0.093
75	13.05	34.85	5.69	0.37	—	9	8.24	75	13.05	34.85	5.69	26.29	176	0.138
100	8.40	34.77	5.71	0.39	—	10	8.26	100	8.40	34.77	5.71	27.05	103	0.173
122	8.40	34.63	5.39	0.71	—	10	8.17							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	25	1515	153	4	20	SW1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	6	1012.0	8.9	6.1	AlCu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.30	35.05	6.54	0.35	—	6	8.30	0	15.30	35.05	6.54	25.96	205	0.000
10	15.32	35.08	—	0.35	—	6	8.31	10	15.32	35.08	—	25.98	203	0.020
20	15.33	35.08	5.76	0.40	—	6	8.42	20	15.33	35.08	5.76	25.98	204	0.041
30	15.31	35.12	5.50	0.32	—	5	8.38	30	15.31	35.12	5.50	26.01	201	0.061
50	15.26	35.06	5.29	0.19	—	6	8.42	50	15.26	35.06	5.29	25.98	205	0.102
75	15.25	35.06	5.23	0.21	—	6	8.40	75	15.25	35.06	5.23	25.98	205	0.153
100	14.05	34.95	5.27	0.21	—	10	8.40	100	14.05	34.95	5.27	26.16	189	0.202
125	12.87	34.93	5.29	0.25	—	5	8.40	125	12.87	34.93	5.29	26.38	168	0.247
153	5.48	34.67	5.21	0.85	—	7	—	150	6.57	34.71	5.22	27.27	83	0.279

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	25	1650	148	4	14	SW1	SW1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	8	1018.0	9.6	6.3	AlCu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\,dt$ cm^3/g	△D dyn. m
0	14.78	34.99	5.59	0.19	—	6	8.42	0	14.78	34.99	5.59	26.03	198	0.000
10	14.79	35.00	5.46	0.24	—	6	8.43	10	14.79	35.00	5.46	26.04	198	0.020
20	14.78	35.00	5.61	0.24	—	6	8.32	20	14.78	35.00	5.61	26.04	198	0.040
30	14.70	35.00	5.35	0.19	—	5	8.35	30	14.70	35.00	5.31	26.06	197	0.059
50	14.61	35.00	5.43	0.67	—	6	8.35	50	14.61	35.00	5.43	26.08	195	0.099
75	14.55	35.00	5.43	1.06	—	6	8.38	75	14.55	35.00	5.43	26.09	195	0.148
100	14.29	35.00	5.40	2.51	—	10	8.40	100	14.29	35.00	5.40	26.14	190	0.196
125	14.98	34.91	5.39	2.83	—	5	8.34	125	14.28	34.91	5.39	25.93	192	0.246
144	12.97	34.92	5.35	2.85	—	7	8.32							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	25	1815	135			SE 0	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	6	1019.5	8.6	5.4	Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	14.46	34.97	5.61	0.31	—	6	8.46	0	14.46	34.97	5.61	26.08	193	0.000
10	14.52	34.97	5.40	0.40	—	6	8.40	10	14.52	34.97	5.40	26.07	195	0.019
20	14.47	34.97	5.61	0.41	—	6	8.30	20	14.47	34.97	5.61	26.08	194	0.039
30	14.42	34.97	5.59	0.29	—	5	8.32	30	14.42	34.97	5.59	26.09	193	0.058
50	14.43	34.98	5.53	0.48	—	6	8.40	50	14.43	34.98	5.53	26.10	193	0.097
75	14.27	34.99	5.32	0.16	—	6	8.41	75	14.27	34.99	5.32	26.14	190	0.145
100	14.43	34.99	5.29	0.41	—	6	8.44	100	13.43	34.99	5.29	26.32	174	0.191
125	13.75	34.99	5.29	0.56	—	6	8.44	125	13.75	34.99	5.29	26.25	181	0.235
130	13.74	34.99	5.21	0.48	—	6	8.42							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	25	144	2100			SE0	SE1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	8	1020.0	7.7	5.6	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	14.40	34.98	5.52	0.32	—	5	8.40	0	14.40	34.98	5.52	26.10	191	0.000
10	14.20	35.00	5.50	0.29	—	6	8.42	10	14.20	35.00	5.50	26.16	186	0.019
20	14.19	35.00	5.61	0.31	—	5	8.38	20	14.19	35.00	5.61	26.17	186	0.038
30	14.20	35.00	5.92	0.16	—	5	8.40	30	14.20	35.00	5.92	26.16	186	0.056
50	14.09	34.99	5.45	0.28	—	7	8.38	50	14.09	34.99	5.45	26.18	186	0.094
75	14.67	34.99	5.45	0.21	—	6	8.39	75	14.67	34.99	5.45	26.05	198	0.142
100	14.16	34.99	5.42	0.36	—	6	8.42	100	14.16	34.99	5.42	26.16	188	0.190
125	14.06	34.99	5.45	0.19	—	5	8.40	125	14.60	34.99	5.45	26.18	187	0.237
144	14.07	35.00	5.35	0.44	—	6	8.42							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	25	2145	130			NW 0	NW0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	5	1021.0	8.9	5.9	Ci	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.15	—	5.52	0.45	—	6	8.42	0	14.15	—	5.52	—	—	—
10	14.21	—	5.50	0.23	—	5	8.40	10	14.21	—	5.50	—	—	—
20	14.22	—	5.50	0.61	—	6	8.24	20	14.22	—	5.50	—	—	—
30	14.20	—	5.48	0.45	—	5	8.28	30	14.20	—	5.48	—	—	—
50	14.20	—	5.48	0.36	—	7	—	50	14.20	—	5.48	—	—	—
75	14.18	—	5.48	0·35	—	5	8.28	75	14.18	—	5.48	—	—	—
100	14.15	—	5.48	0.37	—	6	8.30	100	14.15	—	5.48	—	—	—
130	14.14	—	5.44	0.31	—	7	8.20	125	14.14	—	5.45	—	—	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	25	2330	130			SW0	SW0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	6	1021.0	8.9	6.2	Ci	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.78	—	5.29	0.27	—	7	7.70	0	14.78	—	5.29	—	—	—
10	14.77	—	5.27	0.25	—	6	8.10	10	14.77	—	5.27	—	—	—
20	14.77	—	5.23	—	—	—	—	20	14.77	—	5.23	—	—	—
30	14.79	—	5.29	0.16	—	7	8.25	30	14.79	—	5.29	—	—	—
50	14.78	—	5.31	—	—	—	8.15	50	14.78	—	5.31	—	—	—
75	14.59	—	5.29	0.25	—	7	8.25	75	145.9	—	5.29	—	—	—
100	14.17	—	5.40	0.32	—	6	8.20	100	14.17	—	5.40	—	—	—
130	13.96	—	5.48	0.32	—	7	8.21	125	13.97	—	5.47	—	—	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	26	0100	128			SW 0	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	6	1021.0	7.7	5.8	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.18	—	5.44	—	—	4	8.25	0	15.18	—	5.44	—	—	—
10	15.20	—	5.40	0.27	—	5	8.25	10	15.20	—	5.40	—	—	—
20	15.21	—	5.48	0.16	—	5	8.34	20	15.21	—	5.48	—	—	—
30	15.22	—	5.48	0.39	—	6	8.28	30	15.22	—	5.48	—	—	—
50	15.03	—	5.38	0.53	—	6	8.30	50	15.03	—	5.38	—	—	—
75	14.84	—	5.38	0.24	—	6	8.30	75	14.84	—	5.38	—	—	—
100	14.74	—	5.29	0.24	—	7	8.30	100	14.74	—	5.29	—	—	—
125	13.73	—	5.25	1.34	—	7	8.32	125	3.731	—	5.25	—	—	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	26	0050	124			N 0	N 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	6	1020.0	8.8	7.2	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.51	—	5.48	0.17	—	5	8.30	0	15.51	—	5.48	—	—	—
10	15.52	—	5.42	0.59	—	5	8.28	10	15.52	—	5.42	—	—	—
20	15.55	—	5.42	0.49	—	5	8.30	20	15.55	—	5.42	—	—	—
30	15.48	—	5.40	—	—	5	8.34	30	15.48	—	5.40	—	—	—
50	15.53	—	5.38	0.19	—	5	8.34	50	15.53	—	5.38	—	—	—
75	14.82	—	5.38	0.25	—	5	8.32	75	14.82	—	5.38	—	—	—
100	14.75	—	5.38	0.17	—	6	8.30	100	14.75	—	5.38	—	—	—
124	15.45	—	5.31	0.27	—	5	8.30							

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	26	1350	70	6	4	NE 3	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	3	1010.0	22.4	21.6	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.83	33.76	5.50	0.59	0.23	55	7.97	0	13.83	33.76	5.50	25.28	269	0.000
10	11.92	33.87	5.52	0.77	0.29	62	7.97	10	11.92	33.87	5.52	25.75	225	0.025
20	9.06	33.99	5.48	0.77	0.23	60	7.96	20	9.06	33.99	5.48	26.34	169	0.045
30	7.25	34.07	5.10	0.81	0.19	68	7.88	30	7.25	34.07	5.10	26.67	138	0.060
49	4.53	34.08	5.10	0.67	0.37	62	7.87	50	4.43	34.07	5.10	27.03	104	0.084
69	3.45	34.05	5.02	0.84	0.15	55	7.75							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	26	1900	130	6	7	E 4	E 4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	2	1010.0	23.6	23.4	Cu	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	20.16	32.88	5.16	0.31	0.13	46	7.98	0	20.16	32.88	5.16	23.13	475	0.000
9	17.21	33.20	5.08	0.32	0.08	36	7.93	10	16.95	33.28	5.08	24.23	370	0.042
18	15.55	33.92	5.00	0.51	0.25	50	7.90	20	15.50	33.98	4.93	25.01	288	0.075
27	15.62	34.08	4.68	0.45	0.17	49	7.82	30	15.54	34.10	4.63	25.18	280	0.104
45	14.79	33.91	4.50	0.51	0.14	50	—	50	14.50	34.21	4.42	25.49	250	0.157
67	12.96	34.21	4.30	0.79	0.12	50	7.82	75	11.63	34.25	4.50	26.10	192	0.212
90	8.78	34.29	4.92	0.73	0.10	50	7.74	100	6.95	34.24	5.01	26.85	121	0.252
112	4.77	34.14	4.96	0.80	0.09	50	7.72							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	26	1935	150			E 3	E 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	2	1010.0	25.0	24.8	Cu	2	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-S μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	23.78	32.48	5.20	0.57	0.12	34	8.02	0	23.78	32.48	5.20	21.82	599	0.000
10	22.74	33.12	5.22	0.40	0.17	37	8.00	10	22.74	33.12	5.22	22.61	525	0.056
19	20.24	33.65	5.28	0.36	0.01	30	7.90	20	19.91	33.67	5.28	23.80	411	0.103
29	17.25	33.81	5.28	0.53	0.04	30	7.83	30	17.08	33.81	5.28	24.61	334	0.140
49	15.71	33.82	5.20	0.48	—	39	7.83	50	15.70	33.82	5.19	24.93	303	0.204
73	16.03	34.32	4.98	0.69	0.08	53	7.80	75	16.03	34.03	4.96	25.02	295	0.280
97	15.71	34.23	4.80	0.80	0.06	50	7.80	100	15.80	34.24	4.80	25.23	275	0.352
121	14.29	34.28	4.88	0.83	0.01	49	7.70							
136	8.89	34.22	4.92	0.87	0.01	63	7.62							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	26	2100	143			E 3	E 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	2	1010.0	25.6	25.4	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\,dt/cm^3/g$	△D dyn. m
0	24.92	31.80	5.00	0.40	—	—	7.98	0	24.92	31.80	5.00	20.98	681	0.000
9	24.18	32.73	4.98	0.37	0.05	31	7.95	10	23.91	32.84	5.02	22.06	577	0.063
19	21.34	33.68	5.42	0.40	0.01	30	7.94	20	21.14	33.70	5.44	23.49	440	0.114
28	19.83	33.78	5.46	0.43	0.01	32	7.94	30	19.49	33.79	5.42	24.00	393	0.156
47	17.20	33.92	5.02	0.45	0.01	44	7.95	50	17.04	33.96	5.01	24.73	324	0.227
71	16.50	34.23	4.96	0.80	0.08	41	—	75	16.32	34.23	4.87	25.11	288	0.304
95	15.48	34.15	4.48	0.96	0.05	47	8.00	100	15.36	34.26	4.48	25.34	267	0.373
118	14.94	34.26	4.58	0.72	0.02	63	7.90							
132	14.33	34.38	4.62	0.80	0.01	61	—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	26	2230	140			W 2	E 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	2	1010.0	26.0	25.6	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	24.98	32.28	5.05	0.48	0.01	70	7.83	0	24.98	32.28	5.05	21.32	648	0.000
10	24.91	32.26	5.02	0.35	0.01	71	—	10	24.91	32.26	5.02	21.32	648	0.065
20	22.33	33.28	5.42	0.35	0.00	62	7.82	20	22.33	33.28	5.42	22.84	503	0.122
30	21.54	33.78	5.52	0.87	0.01	63	—	30	21.54	33.78	5.52	23.44	445	0.170
49	19.70	33.96	5.35	0.75	—	65	7.80	50	19.57	33.97	5.33	24.11	382	0.253
74	16.81	34.25	4.78	0.83	0.17	74	7.83	75	16.76	34.25	4.77	25.02	195	0.338
99	15.70	34.29	4.70	0.80	0.23	77	7.82	100	15.61	34.29	4.69	25.31	267	0.409
123	13.38	34.36	4.54	0.85	0.06	88	7.84	125	13.20	34.36	4.53	25.88	213	0.470
138	12.08	34.34	4.50	0.77	0.19	94	7.85	150						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	26	2350	135			W 2	E 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	2	1010.0	25.8	25.8	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	24.75	31.81	4.96	0.36	0.00	64	7.85	0	24.25	31.81	4.96	21.03	675	0.000
10	23.97	32.41	4.90	0.37	0.01	61	7.83	10	23.97	32.41	5.90	21.72	610	0.064
19	22.28	33.31	4.90	0.40	0.17	60	7.80	20	22.01	33.34	4.95	22.98	489	0.116
29	19.65	33.50	5.42	0.40	0.17	60	7.85	30	19.44	33.52	5.43	23.81	410	0.164
49	16.70	34.06	5.08	0.60	0.08	71	7.80	50	16.62	34.07	5.05	24.91	305	0.236
73	15.78	34.31	4.36	0.88	0.08	58	7.80	75	15.74	34.31	4.34	25.30	268	0.308
97	15.46	34.33	4.82	0.85	—	94	7.70	100	15.40	34.33	4.27	25.39	260	0.375
127	14.82	34.40	4.20	0.90	—	94	7.70	125	14.87	34.39	4.20	25.55	244	0.439

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	26	0150	140			NE 1	NE 1

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1010.3	25.9	25.4	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	25.01	32.19	4.90	0.33	0.01	60	8.02	0	25.01	32.19	4.90	21.24	655	0.000
10	23.74	32.83	5.14	0.40	0.06	64	8.02	10	23.74	32.83	5.14	22.10	573	0.061
20	22.20	33.94	5.20	0.84	0.06	31	8.00	20	22.20	33.94	5.20	23.38	451	0.113
30	20.66	34.14	5.20	0.47	0.08	42	7.90	30	20.66	34.14	5.20	23.95	390	0.155
50	17.41	34.16	5.42	0.44	0.04	40	7.81	50	17.41	34.16	5.24	24.79	317	0.227
75	16.37	34.29	5.08	0.60	0.27	55	7.80	75	16.37	34.29	5.08	25.14	283	0.302
100	15.85	34.31	4.86	0.60	0.02	34	7.70	100	15.85	34.31	4.86	25.27	271	0.372
125	12.72	34.27	4.40	0.60	0.08	47	7.67	125	12.72	34.27	4.40	25.90	211	0.433

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
08	27	0325	130			NE 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amout	
SW	2	1010.5	25.8	25.3	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	25.65	32.72	4.74	0.44	0.13	26	7.90	0	25.65	32.72	4.74	21.45	636	0.000
10	24.06	33.06	4.98	0.40	0.17	27	7.86	10	24.06	33.06	4.98	22.18	566	0.060
20	23.58	33.68	5.10	0.87	0.01	32	7.80	20	23.58	33.68	5.10	22.79	508	0.114
30	21.01	34.21	5.20	0.40	0.02	47	7.75	30	21.61	34.21	5.20	23.75	417	0.160
50	20.84	34.32	5.28	0.45	0.06	18	7.74	50	20.84	34.32	5.28	24.04	389	0.241
75	16.88	34.27	4.60	0.53	0.01	39	7.74	75	16.88	34.27	4.60	25.00	298	0.327
100	16.37	34.27	4.50	0.43	0.15	24	7.72	100	16.37	34.27	4.50	25.12	288	0.400
125	16.06	34.24	4.48	0.75	0.33	60	7.67	125	16.06	34.24	4.48	25.17	284	0.472

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	27	0520	130			NE 1	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1010.1	21.2	21.0	Ci Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	26.32	32.70	4.70	0.33	0.17	57	7.95	0	26.32	32.70	4.90	21.22	657	0.000
10	25.11	33.25	4.90	0.36	0.02	44	7.92	10	25.11	33.25	4.90	22.01	582	0.062
20	23.92	33.83	4.88	0.33	0.12	30	7.92	20	23·92	33.83	4.88	22.80	507	0.116
30	23.25	34.05	5.10	0.31	0.10	34	7.90	30	23.25	34.05	5.10	23.16	472	0.165
50	20.18	34.31	5.30	0.35	0.15	28	7.87	50	21.28	34.31	5.30	23.94	398	0.253
75	18.12	34.31	4.70	0.43	0.00	31	7.80	75	18.12	34.31	4.70	24.73	322	0.343
100	17.14	34.34	4.38	0.55	0.08	47	7.78	100	17.14	34.34	4.38	24.99	298	0.421
125	15.94	34.30	4.44	0.71	0.15	51	7.76	125	15.94	34.30	4.44	25.24	274	0.494

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	27	0700	115	3	24	NE 2	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	02	1010.2	25.6	25.4	Ci Cu	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	26.33	33.15	5.12	0.47	0.06	50	8.08	0	26.33	33.15	5.12	21.56	625	0.000
10	25.68	33.29	5.14	0.37	0.02	38	8.02	10	25.68	33.29	5.14	21.87	596	0.061
20	23.78	33.71	5.16	0.44	0.15	39	8.02	20	23.78	33.71	5.16	22.75	511	0.116
30	21.89	34.07	5.28	0.33	0.06	40	8.07	30	21.89	34.07	5.28	23.56	434	0.164
50	21.04	32.20	5.28	0.36	0.02	64	7.98	50	21.04	34.20	5.28	23.90	402	0.248
75	20.22	34.32	4.98	0.39	0.02	57	7.94	75	20.22	34.32	4.98	24.21	372	0.345
100	18.28	34.37	4.72	0.40	0.06	38	7.92	100	18.28	24.37	4.72	24.74	321	0.432
110	17.80	34.26	4.64	0.53	0.04	53	7.90							

207선 해 양 관 측 성 적

Oceanographic Data, Line 207

3월(March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	21	1430	85	8	5	No	N 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	6	1012.2	10.9	8.1	Ci	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.07	32.78	5.81	0.25	—	6	7.89	0	13.07	32.78	5.81	24.68	326	0.000
10	13.46	34.50	5.66	0.21	—	7	8.05	10	13.46	34.50	5.66	25.93	208	0.027
20	12.99	34.63	5.19	0.25	—	—	8.08	20	12.99	34.63	5.19	26.13	190	0.046
30	12.64	34.77	5.54	0.33	—	7	8.08	30	12.64	34.77	5.54	26.31	193	0.075
50	12.84	34.79	5.61	0.39	—	7	8.08	50	12.84	34.79	5.61	26.18	186	0.101
75	12.77	34.82	5.61	0.55	—	16	8.08	75	12.77	34.82	5.61	26.32	173	0.146
85	12.75	34.82	5.41	0.65	—	8	8.06							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	21	1730	105			NW 1	NW 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	7	1011.3	10.9	7.8	Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	12.08	33.66	5.81	0.25	—	6	7.89	0	12.08	33.66	5.81	25.55	243	0.000
10	12.45	33.92	5.66	0.21	—	7	8.05	10	12.45	33.92	5.66	25.68	231	0.024
20	12.23	34.42	5.96	0.25	—	6	8.08	20	12.23	34.42	5.19	26.11	191	0.045
30	15.28	35.03	5.54	0.33	—	6	8.08	30	15.28	35.03	5.54	25.95	207	0.085
50	14.46	34.81	5.61	0.39	—	—	8.03	50	14.46	34.81	5.61	25.96	205	0.106
75	12.49	—	5.61	0.55	—	6	8.03	75	12.49	34.70	5.61	26.23	176	0.154
105	12.43	34.81	5.41	0.65	—	7	8.06	100	12.26	34.77	5.46	26.38	186	0.197

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	21	1845	120			NE 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	7	1011.6	12.3	9.3	Cu St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	15.75	35.08	5.52	0.23	—	6	8.15	0	15.75	35.08	5.52	25.88	212	0.000
10	15.67	35.08	5.97	0.25	—	6	8.18	10	15.67	35.08	5.97	25.90	211	0.021
20	15.57	35.07	5.04	0.35	—	6	8.20	20	15.57	35.07	5.04	25.92	210	0.042
30	15.44	35.07	5.77	0.25	—	6	8.18	30	15.44	35.07	5.77	25.95	207	0.063
50	15.50	35.04	6.73	0.30	—	6	8.14	50	15.50	35.04	6.73	25.91	211	0.105
75	15.09	34.99	6.01	0.24	—	6	8.18	75	15.09	34.99	6.01	25.96	207	0.157
100	14.29	34.93	5.66	0.29	—	6	8.14	100	14.29	34.93	5.66	26.09	195	0.208
117	13.93	34.91	5.73	0.25	—	6	8.12							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	21	2050	225			NE 2	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	7	1010.0	10.8	9.9	0	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	15.58	35.07	6.01	0.28	—	6	8.18	0	15.58	35.07	6.01	25.91	209	0.000
10	15.58	35.07	6.02	0.28	—	6	8.19	10	15.58	35.07	6.02	25.91	209	0.021
20	15.75	35.07	6.20	—	—	5	8.39	20	15.75	35.07	6.20	25.88	213	0.042
30	15.57	35.06	6.31	0.25	—	5	8.36	30	15.57	35.06	6.31	25.91	211	0.063
50	15.50	35.06	5.81	0.35	—	6	8.35	50	15.50	35.06	5.81	25.93	210	0.106
75	15.43	35.06	6.31	0.25	—	6	8.91	75	15.43	35.06	6.31	25.94	209	0.158
100	15.38	35.05	6.64	0.35	—	6	8.49	100	15.38	35.05	6.64	25.94	209	0.210
125	15.10	34.98	6.20	0.32	—	6	8.37	125	15.10	34.98	6.20	25.95	209	0.263
150	14.48	34.95	6.11	0.32	—	6	8.24	150	14.48	34.95	6.11	26.06	199	0.314
200	11.65	34.75	6.11	0.42	—	5	8.20	200	11.65	34.75	6.11	26.48	160	0.404
225	9.57	34.71	5.42	0.72	—	5	8.20							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	21	2020	152			NE 2	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	7	1008.3	13.5	10.2		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.76	35.08	6.33	0.55	—	6	8.27	0	15.76	35.08	6.33	25.88	212	0.000
10	15.84	35.09	6.41	0.31	—	6	8.30	10	15.84	35.09	6.41	25.87	214	0.021
20	15.74	35.13	6.08	—	—	—	8.30	20	15.74	35.13	6.08	25.92	209	0.043
30	15.74	35.09	6.64	0.25	—	7	8.25	30	15.74	35.09	6.64	25.89	212	0.064
50	15.61	35.08	6.35	0.15	—	5	8.24	50	15.61	35.08	6.35	25.92	211	0.106
75	15.56	35.08	6.44	0.35	—	7	8.30	75	15.56	35.08	6.44	25.93	210	0.159
100	15.59	35.07	5.73	0.53	—	6	8.10	100	15.59	35.07	5.73	25.91	212	0.212
125	15.41	35.05	6.02	2.04	—	6	8.20	125	15.41	35.05	6.02	25.94	211	0.265
150	15.47	35.06	6.02	1.96	—	6	8.29	150	15.47	35.06	6.02	25.93	212	0.318

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	22	0030	96			SE 2	SE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	8	1005.5	11.7	10.4		10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.23	35.05	—	0.65	—	5	8.30	0	15.23	35.05	—	25.98	203	0.000
10	15.23	35.05	—	0.27	—	6	8.30	10	15.23	35.05	—	25.98	204	0.020
20	15.28	35.05	—	0.25	—	7	8.28	20	15.28	35.05	—	24.97	205	0.041
30	15.29	35.05	—	0.39	—	7	8.29	30	15.29	35.05	—	25.96	205	0.061
50	15.12	35.04	—	0.43	—	6	8.29	50	15.12	35.04	—	25.99	203	0.102
25	15.10	35.03	—	0.40	—	6	8.31	75	15.10	35.03	—	25.99	204	0.153
93	15.05	35.02	—	0.41	—	7	8.38							

7월(July) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	28	1110	84		16	SW1	SW1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1011.6	26.7	26.5	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	24.55	33.62	5.22	0.35	0.04	47	7.90	0	24.55	33.62	5.22	22.46	539	0.060
10	19.89	33.04	5.70	0.29	0.01	47	7.88	10	19.89	33.04	5.70	23.32	457	0.050
19	16.81	33.51	5.68	0.54	0.12	47	7.89	20	16.57	33.54	5.65	24.52	343	0.090
29	15.08	33.80	5.30	0.43	0.12	62	7.89	30	15.03	33.82	5.26	25.08	289	0.122
48	14.21	34.05	4.62	0.47	0.12	66	7.89	50	13.94	34.06	4.58	25.50	249	0.167
77	7.07	34.15	4.60	0.56	0.17	57	7.70	75	7.78	34.15	4.56	26.66	139	0.224

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	28	1210	103		17	SW 1	SW 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1011.2	28.4	27.8	Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	26.80	31.18	5.02	0.37	0.01	37	8.02	0	26.80	31.18	5.02	19.93	781	0.000
9	20.37	31.89	5.10	0.33	0.08	38	8.00	10	19.97	32.01	5.18	22.52	533	0.066
18	19.31	32.92	5.76	0.35	0.01	38	8.00	20	17.24	32.98	5.78	23.94	398	0.112
27	16.63	33.09	5.68	0.40	0.06	53	7.92	30	16.21	33.21	5.62	24.35	359	0.150
45	14.83	33.87	5.19	0.51	0.13	46	7.85	50	14.69	33.96	4.98	25.26	272	0.214
67	14.62	34.12	4.34	0.53	0.15	61	7.85	75	14.51	34.21	4.20	25.49	250	0.279
90	14.27	34.38	4.20	0.57	0.04	58	7.80							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
03	27	2040	115			SW 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1010.0	26.9	26.4	Ci Cu	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/I	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	26.71	30.91	4.90	0.37	0.10	58	7.97	0	26.71	30.91	4.90	19.76	798	0.000
10	24.14	31.36	5.10	0.37	0.13	76	7.90	10	24.14	31.36	5.10	20.87	691	0.074
20	20.25	32.76	5.70	0.45	0.08	59	7.90	20	20.01	32.85	5.72	23.14	474	0.133
29	18.72	33.44	5.72	0.44	0.04	43	7.92	30	18.62	33.48	5.74	23.98	394	0.176
49	17.36	34.10	5.84	0.40	0.04	53	7.88	50	17.28	34.12	5.77	24.79	317	0.247
73	15.92	34.43	4.20	0.48	0.13	41	7.82	75	15.92	34.43	4.17	25.35	263	0.320
97	15.79	34.46	4.18	0.57	0.15	71	7.80	100	15.62	34.46	4.17	25.34	255	0.389
107	15.13	34.46	4.16	0.63	0.31	64	7.79							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	27	1940	240			SW 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	W	Type	Amount	
NE	2	1010.0	27.8	26.8	Ci Cu	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	27.05	30.54	4.84	0.39	—	—	7.92	0	27.05	30.54	4.84	19.37	835	0.000
10	24.17	30.97	5.22	0.47	0.02	62	8.03	10	24.17	30.97	5.33	20.57	720	0.078
19	23.22	33.16	5.12	0.44	0.01	60	8.10	20	22.97	33.26	5.12	22.65	521	0.140
29	20.62	33.74	5.12	0.44	0.01	63	8.09	30	20.45	33.78	5.12	23.73	418	0.187
48	18.66	34.25	5.02	0.48	0.02	50	8.06	50	18.52	34.28	4.95	24.61	334	0.262
72	17.29	34.46	4.20	0.64	0.18	65	8.00	75	17.09	34.46	4.18	25.10	287	0.340
87	16.43	34.46	4.20	0.63	0.13	71	7.97	100	16.13	34.44	4.20	25.30	268	0.410
107	16.06	34.35	4.20	0.71	0.12	68	7.90	125	15.84	34.37	4.20	25.32	266	0.478
129	15.68	34.36	4.20	0.72	0.10	67	7.82	150	11.77	34.27	4.19	26.09	193	0.536
171	7.48	34.20	4.16	0.77	0.06	72	7.76							
197	5.79	34.15	4.12	0.81	0.04	76	7.70							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	27	1845	160			SW 1	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1010.0	27.2	27.0	CiCu	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	26.50	30.90	4.86	0.51	0.02	52	7.90	0	26.50	30.90	4.86	19.82	792	0.000
10	24.57	31.85	5.02	0.49	0.15	81	7.90	10	24.57	31.85	5.02	21.12	668	0.073
20	23.67	32.68	5.22	0.51	0.01	48	7.97	20	23.67	32.68	5.22	22.01	583	0.136
30	19.99	33.95	5.26	0.55	—	64	7.92	30	19.99	33.95	5.26	23.98	394	0.184
50	18.38	33.99	5.26	0.61	0.25	68	7.90	50	18.38	33.99	5.26	24.43	351	0.259
74	17.04	34.07	5.28	0.64	0.25	64	7.97	75	17.04	34.07	5.25	24.82	314	0.343
99	17.37	34.27	4.40	0.71	0.15	63	7.93	100	16.94	34.27	4.39	24.99	298	0.420
123	16.39	34.37	4.28	0.73	0.17	68	7.98	125	16.21	34.37	4.27	25.24	274	0.492
148	13.41	34.38	4.20	0.75	0.12	64	7.94							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	27	1652	90	4	17	SW 1	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	1	1010.0	30.6	30.4	Ci	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	26.86	31.51	4.52	0.32	0.12	52	8.02	0	26.86	31.51	4.52	20.16	759	0.000
10	25.52	31.49	4.98	0.39	0.04	60	7.97	10	25.52	31.49	4.98	20.56	721	0.074
20	23.55	32.50	5.00	0.36	0.04	55	7.97	20	23.55	32.50	5.00	21.91	592	0.140
30	22.31	32.94	5.26	0.48	0.01	57	8.01	30	22.31	32.94	5.26	22.59	527	0.196
50	19.15	33.82	5.32	0.43	0.31	63	8.00	50	19.15	33.82	5.32	24.10	382	0.287
75	17.77	34.09	5.08	0.48	0.08	70	7.98	75	17.77	34.09	5.08	24.95	330	0.376
90	16.80	34.11	5.18	0.51	0.17	82	7.98							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	27	1530	136	4	18	SW 1	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	1	1010.0	30.9	30.5	Ci	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	27.39	31.99	4.60	0.36	0.17	69	7.90	0	27.39	31.99	4.60	20.35	740	0.000
10	24.70	32.30	5.26	0.40	0.21	60	7.82	10	24.70	32.30	5.22	61.42	639	0.069
20	24.26	32.65	5.30	0.36	—	93	7.91	20	24.26	32.65	5.30	21.81	601	0.131
30	23.48	33.04	5.38	0.33	0.13	102	7.91	30	23.48	33.04	5.38	22.33	552	0.189
50	19.62	33.85	5.32	0.45	0.04	46	7.80	50	19.62	33.85	5.32	24.00	392	0.283
75	16.95	34.04	5.24	0.40	0.10	72	7.74	75	16.95	34.04	5.24	24.81	315	0.372

St. No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	27	1240	115	4	22	NE 1	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Dirction	Force		Dry	Wet	Type	Amount	
NE	01	1011.0	29.9	28.1	CiCu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	26.90	32.38	4.68	0.35	0.02	58	8.08	0	26.90	32.38	4.68	20.80	697	0.000
10	24.58	32.52	5.02	0.35	—	79	8.04	10	24.58	32.52	5.02	21.62	619	0.066
20	23.70	34.22	5.02	0.40	0.08	57	8.03	20	23.70	34.22	5.02	23.16	472	0.121
30	21.88	34.21	5.06	0.40	0.04	62	8.03	30	21.88	34.21	5.06	23.67	424	0.165
50	18.86	34.33	5.24	0.37	0.08	66	8.00	50	18.86	34.33	5.24	24.56	339	0.242
75	17.05	34.26	4.98	0.43	0.06	64	7.98	75	17.05	34.26	4.98	24.95	301	0.322
100	16.52	34.25	5.26	0.55	0.15	65	7.98	100	16.52	34.25	5.26	24.07	290	0.397
110	16.48	34.25	5.70	0.53	0.04	63	7.90							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
12	27	1015	100	5	21	SW 1	NE 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	1	1011.2	28.2	28.0	Ci Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	27.12	31.86	4.98	0.51	0.17	51	8.00	0	27.12	31.86	4.98	20.34	742	0.000
10	26.19	32.96	4.92	0.40	0.17	66	8.02	10	26.19	32.96	4.92	21.46	635	0.069
20	24.37	34.19	5.06	0.43	0.08	62	8.03	20	24.37	34.19	5.06	22.94	493	0.125
30	23.21	34.06	5.12	—	—	—	8.00	30	23.21	34.55	5.12	23.55	435	0.172
50	21.30	34.36	5.08	0.40	0.08	70	—	50	21.30	34.36	5.08	23.95	397	0.255
75	18.72	34.34	4.84	0.45	0.19	68	8.00	75	18.72	34.34	4.84	24.61	334	0.347
100	17.58	33.78	4.92	0.51	0.03	37	8.00	100	17.58	—	4.92	—	—	—

206선 해 양 관 측 성 적

Oceanographic Data, Line 206

3월(March) 조사선(Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	22	2135	68	03	07	NNE 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	03	1007.4	10.0	6.5		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	12.90	34.28	6.85	0.89	—	—	8.54	0	12.90	34.28	6.85	25.87	213	0.000
10	12.96	34.32	9.06	0.19	—	—	8.58	10	12.96	34.32	9.06	25.90	211	0.021
20	12.89	34.30	7.76	0.59	—	—	8.57	20	12.89	34.30	7.76	25.89	212	0.042
30	12.94	34.29	8.50	0.67	—	—	8.58	30	12.94	34.29	8.50	25.88	214	0.064
50	12.95	34.30	7.16	0.59	—	—	8.58	50	12.95	34.30	7.16	25.88	213	0.107
65	12.96	34.31	7.79	0.65	—	—	8.60							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	22	2355	69			NNE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	08	1007.4	10.4	68		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	13.50	34.61	7.54	0.53	—	—	8.60	0	13.50	34.61	7.54	26.01	200	0.000
10	13.62	34.46	7.16	0.55	—	—	8.32	10	13.62	34.46	7.16	25.86	214	0.021
20	13.60	34.45	8.82	0.52	—	—	8.5	20	13.60	34.45	8.28	25.87	214	0.042
30	13.62	34.47	7.00	0.24	—	—	8.51	30	13.62	34.47	7.00	25.87	214	0.064
50	12.53	34.42	7.35	0.62	—	—	8.52	50	12.53	34.42	7.35	26.06	197	0.105
75	12.21	34.39	7.00	0.70	—	—	8.47							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	23	0200	105			NNE6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	12	1007.4	9.5	6.5		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	12.60	34.44	8.30	0.63	—	—	8.56	0	12.60	34.44	8.30	26.06	195	0.000
10	12.10	34.26	7.58	0.16	—	—	8.61	10	12.10	34.26	7.58	26.01	200	0.020
20	11.81	34.22	8.10	0.52	—	—	8.59	20	11.81	34.22	8.10	26.04	198	0.040
30	11.66	34.22	7.83	0.45	—	—	8.60	30	11.66	34.22	7.83	26.06	196	0.060
50	11.82	34.27	8.59	0.57	—	—	8.63	50	11.82	34.27	8.59	26.08	195	0.099
75	12.09	34.34	6.75	0.35	—	—	8.63	75	12.09	34.34	6.75	26.08	195	0.148
100	12.11	34.40	9.66	0.61	—	—	8.62	100	12.11	34.40	9.66	26.12	192	0.196

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	23	0330	134			NNE 6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	12	1011.4	9.5	7.0		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	14.70	34.72	—	0.33	—	—	8.61	0	14.70	34.72	—	25.84	217	0.000
10	16.34	34.62	7.99	0.19	—	—	8.58	10	16.34	34.62	7.99	25.40	259	0.024
20	15.37	34.63	—	0.32	—	—	8.57	20	15.37	34.63	—	25.63	237	0.049
30	15.36	34.64	—	0.21	—	—	8.58	30	15.36	34.64	—	25.64	236	0.073
50	14.31	34.53	7.14	0.19	—	—	8.59	50	14.31	34.53	7.14	25.77	224	0.119
75	13.40	34.40	7.81	0.20	—	—	8.60	75	13.40	34.40	7.81	25.87	216	0.174

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	23	0630	130			NNE7	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	14	1011.5	8.5	6.9		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	12.70	34.72	7.96	0.23	—	—	8.60	0	12.70	34.72	7.96	26.25	177	0.000

10월(October) 조사선(Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	12	0555	54	03	08	NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	12	1008.2	24.2	19.2	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	22.50	32.31	4.87	0.45	—	1	7.93	0	22.50	32.31	4.87	22.06	577	0.000
10	22.30	32.26	5.09	0.48	—	2	8.24	10	22.30	32.26	5.09	22.08	575	0.058
20	22.00	32.35	4.87	0.53	—	1	8.30	20	22.00	32.35	4.87	22.23	561	0.115
30	21.91	32.40	4.87	0.43	—	1	8.23	30	21.91	32.40	4.87	22.29	555	0.170
50	20.63	32.73	4.41	0.53	—	5	8.26	50	20.63	32.73	4.41	22.89	498	0.276

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	11	2230	71	03	10	NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	12	1008.2	24.2	19.2	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.40	32.31	4.75	0.15	—	—	8.17	0	22.40	32.31	4.75	27.09	574	0.000
10	22.14	32.30	5.66	0.44	—	—	8.23	10	22.14	32.30	5.66	22.16	568	0.057
20	22.10	32.32	5.21	0.41	—	4	8.18	20	22.10	32.32	5.21	22.18	566	0.114
30	22.02	32.33	5.21	0.25	—	5	8.26	30	22.02	32.33	5.21	22.21	563	0.170
50	22.30	32.77	4.87	0.25	—	5	8.32	50	22.30	32.77	4.87	22.47	538	0.281
70	15.90	33.65	3.74	0.39	—	18	8.30							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	12	0055	100			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	16	1008.6	22.8	13.8		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4P– μat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.40	32.57	4.53	0.03	—	3	9.19	0	22.40	32.57	4.53	22.29	555	0.000
10	22.23	32.57	5.21	0.04	—	4	8.39	10	22.23	32.57	5.21	22.33	551	0.055
20	22.60	32.92	5.09	—	—	5	8.35	20	22.60	32.92	5.09	22.49	536	0.110
30	22.55	32.98	4.98	0.08	—	4	8.35	30	22.55	32.98	4.98	22.56	530	0.163
50	21.98	33.23	4.75	0.02	—	6	8.39	50	21.98	33.23	4.75	22.90	497	0.266
75	16.13	33.74	3.74	0.35	—	15	8.16	75	16.13	33.74	3.74	24.77	319	0.368
97	16.03	33.97	4.08	0.59	—	17	8.22							

St No.	Date	Time	Dep	Water Color	Water Trans.	Wave	Swell
04	12	0300	122			NE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Day	Wet	Type	Amount	
NE	16	1008.6	22.1	20.4		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	21.60	32.79	4.54	0.01	—	2	8.30	0	21.60	32.79	4.53	22.68	518	0.000
10	22.67	32.93	5.09	0.04	—	4	8.37	10	22.67	32.93	5.09	22.48	537	0.053
20	22.75	32.95	5.09	0.05	—	4	8.35	20	22.75	32.95	5.09	22.48	538	0.107
30	23.19	33.26	4.75	0.13	—	5	8.33	30	23.19	33.26	4.75	22.58	528	0.160
50	23.81	33.50	4.87	0.09	—	3	8.32	50	23.81	33.50	4.87	22.58	528	0.266
75	20.86	33.53	4.30	0.29	—	9	8.28	75	20.86	33.53	4.30	23.44	445	0.388
100	17.35	34.18	3.74	0.36	—	20	8.21	100	17.35	34.18	3.74	24.82	314	0.483
120	17.70	33.90	5.89	0.64	—	—	8.11							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	12	0525	121			NE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Forc		Dry	Wet	Type	Amount	
NE	10	1008.9	21.4	20.0		0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	21.80	33.42	4.75	—	—	5	8.16	0	21.80	33.42	4.75	23.10	478	0.000
10	23.48	33.42	5.09	0.05	—	3	8.23	10	23.48	33.42	5.09	22.62	523	0.050
20	23.45	33.43	4.98	0.11	—	4	8.32	20	23.45	33.43	4.98	22.64	522	0.102
30	23.46	33.46	4.98	0.11	—	5	8.34	30	23.46	33.46	4.98	22.65	521	0.155
50	23.74	33.62	4.75	0.16	—	5	8.32	50	23.74	33.62	4.75	22.69	517	0.259
75	19.35	33.76	3.85	0.31	—	11	8.35	75	19.35	33.76	3.85	24.00	392	0.373
100	17.65	34.20	3.96	0.08	—	13	8.18	100	17.65	34.20	3.96	24.77	310	0.462
120	16.95	34.22	3.74	0.68	—	7	8.22							

205선 해 양 관 측 성 적

Oceanographic Data, Line 205

3월(March) 조사선(Suro)

St No.	Date	Time	Depth	Water Color.	Water Trans.	Wave	Swell
01	26	2025	56	03	08	N 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	8	1020.7	10.2		Ci	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	11.90	34.63	8.28	—	—	—	8.48	0	11.90	34.63	8.28	26.34	169	0.000
10	11.97	34.33	7.39	—	—	—	8.48	10	11.97	34.33	7.39	26.07	193	0.018
20	11.70	34.33	7.63	—	—	—	8.43	20	11.70	34.33	7.63	26.14	188	0.037
30	11.64	34.33	7.82	—	—	—	8.42	30	11.64	34.33	7.82	26.16	187	0.056
50	11.55	34.31	7.75	—	—	—	8.43	50	11.55	34.31	7.75	26.15	188	0.094

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	26	2200	67	2	11	N 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	08	1019.9	12.0	8.6	Ci t	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	12.10	34.41	8.01	0.45	—	—	8.45	0	12.10	34.41	8.01	26.13	189	0.000
10	12.00	34.35	8.00	0.45	—	—	8.48	10	12.00	34.35	0.00	26.10	192	0.019
20	11.84	34.33	7.37	0.51	—	—	8.48	20	11.84	34.33	7.37	26.12	190	0.038
30	11.83	34.31	6.32	0.33	—	—	8.54	30	11.83	34.31	6.32	26.10	192	0.057
50	11.67	34.28	8.50	0.59	—	—	8.55	50	11.67	34.28	8.50	26.11	191	0.096

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	27	00.00	82	03	09	N 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	10	1019.6	11.6	8.5	Ci St	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.95	34.75	7.52	0.23	—	—	8.48	0	14.95	34.75	7.52	25.81	219	0.000
10	15.39	34.66	7.17	0.19	—	—	8.52	10	15.39	34.66	7.17	25.64	235	0.023
20	15.39	34.70	7.27	0.17	—	—	8.50	20	15.39	34.70	7.27	25.67	233	0.046
30	14.65	34.59	6.66	0.21	—	—	8.52	30	14.65	34.59	6.66	25.75	225	0.069
50	13.21	34.23	6.66	0.19	—	—	8.55	50	13.21	34.23	6.66	25.93	209	0.113
75	13.08	34.34	6.66	0.25	—	—	8.55	75	13.08	34.34	6.66	25.89	214	0.116
80	12.10	34.33	7.68	0.19	—	—	8.53							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	27	0030	103	03	10	N 4	

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	8	1019.9	11.2	8.4	Ci St	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.65	34.85	—	01.2	—	—	8.54	0	14.65	34.85	—	25.95	205	0.000
10	16.13	34.75	6.66	0.21	—	—	8.55	10	16.13	34.75	6.66	25.54	245	0.023
20	16.12	34.72	7.23	0.16	—	—	8.54	20	16.12	34.72	7.23	25.52	247	0.047
30	16.12	34.73	7.57	0.25	—	—	8.52	30	16.12	34.73	7.57	25.53	247	0.072
50	16.14	34.73	6.04	0.24	—	—	8.52	50	16.14	34.73	6.04	25.52	248	0.122
75	15.83	34.68	6.54	0.20	—	—	8.51	75	15.83	34.68	6.54	25.56	245	0.183
100	15.39	34.64	7.78	0.24	—	—	8.52	100	15.39	34.64	7.78	25.63	240	0.244

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	27	0550	151			N 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
4	12	1019.7	11.0	8.2	Ci St	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	15.50	34.87	8.71	0.56	—	—	8.52	0	15.50	34.87	8.71	25.78	222	0.000
10	16.13	34.73	6.75	0.29	—	—	8.49	10	16.13	34.73	6.75	25.53	246	0.023
20	16.14	34.72	5.82	0.40	—	—	8.45	20	16.14	34.72	5.82	25.52	247	0.048
30	16.05	34.71	7.04	0.44	—	—	8.47	30	15.05	34.71	7.04	25.58	246	0.073
50	16.03	34.71	7.04	0.19	—	—	8.50	50	16.03	34.71	7.04	25.54	247	0.122
75	16.01	34.72	7.59	0.36	—	—	8.49	75	16.01	34.72	7.59	25.55	247	0.184
100	16.01	34.71	9.43	0.36	—	—	8.47	100	16.01	34.71	9.43	25.54	248	0.246
145	16.02	34.71	6.71	0.43	—	—	8.49	125	16.01	34.71	8.88	25.54	249	0.308

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	27	0835	145			N 6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	23	1018.7	11.6	9.0	CiSt	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2 Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	16.40	34.80	7.73	0.35	—	—	8.54	0	16.40	34.80	7.73	25.52	247	0.000
10	16.65	34.73	7.63	0.11	—	—	8.48	10	16.65	34.73	7.63	25.42	257	0.025
20	16.67	34.76	8.22	0.12	—	—	8.46	20	16.67	34.76	8.22	25.43	256	0.051
30	16.65	34.75	6.88	0.19	—	—	8.50	30	16.65	34.75	6.88	25.42	257	0.077
50	16.44	34.77	9.96	0.21	—	—	8.51	50	16.44	34.77	9.96	25.49	251	0.128
75	16.54	34.78	7.20	0.47	—	—	8.50	75	16.45	34.78	7.20	25.49	251	0.190
100	16.55	34.74	7.46	0.49	—	—	8.53	100	16.55	34.74	7.46	25.44	258	0.254
145	15.84	34.70	8.10	0.12	—	—	8.47	125	16.29	34.71	7.79	25.47	155	0.318

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	20	1105	168	03	11	N 6	

Wind		Baro.	Air TemP.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	24	1017.6	11.1	8.0	Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	16.00	34.95	9.49	0.56	—	—	8.50	0	16.00	34.95	9.49	25.75	227	0.000
10	16.47	34.75	7.44	0.16	—	—	8.48	10	16.47	34.75	7.44	25.47	252	0.024
20	16.52	34.75	8.28	0.19	—	—	8.52	20	16.52	34.75	8.28	25.45	254	0.049
30	16.49	34.76	7.82	0.60	—	—	85.2	30	16.49	34.76	7.82	25.47	253	0.075
50	16.49	34.74	9.66	0.13	—	—	8.52	50	16.49	34.74	9.66	25.45	254	0.125
75	16.51	34.77	7.68	0.13	—	—	8.54	75	16.51	34.77	7.68	25.47	254	0.189
100	16.52	34.74	6.41	0.20	—	—	8.49	100	16.52	34.74	6.41	25.45	257	0.253
125	16.57	34.82	6.83	0.16	—	—	8.53	125	16.57	34.82	6.83	25.49	253	0.317
150	16.49	34.74	6.44	0.19	—	—	8.52	150	16.49	34.74	6.44	25.45	258	0.381
165	16.53	34.65	6.34	0.19	—	—	8.45							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	27	13.50	146	02	15	N 7	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	23	1019.9	13.1	10.1	Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	16.20	34.87	7.64	0.28	—	—	8.49	0	16.20	34.87	7.64	25.62	237	0.000
10	16.56	34.74	6.23	0.23	—	—	8.50	10	16.56	34.74	6.23	25.44	255	0.025
20	16.58	34.75	6.62	0.25	—	—	8.53	20	16.58	34.75	6.62	25.44	255	0.050
30	16.57	34.74	6.35	0.25	—	—	8.48	30	16.57	34.74	6.35	25.43	256	0.076
50	16.55	34.73	6.44	0.29	—	—	8.52	50	16.55	34.73	6.44	25.43	256	0.127
75	16.57	34.75	7.47	0.29	—	—	8.50	75	16.57	34.75	7.47	25.44	257	0.191
100	16.57	34.74	6.89	0.17	—	—	8.48	100	16.57	34.74	6.89	25.43	258	0.256
125	16.76	34.75	8.62	0.19	—	—	8.47	125	16.76	34.75	8.62	25.39	263	0.321
145	16.58	34.75	6.23	0.16	—	—	8.49							

10월(October) 조사선(Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	12	1420	59			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	12	1011.7	20.1	17.6		6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn·m
0	22.10	32.53	5.21	0.08	—	4	8.16	0	22.10	32.53	5.21	22.34	550	0.000
10	22.05	32.54	4.64	0.15	—	7	8.29	10	22.05	32.54	4.64	22.36	548	0.055
20	22.09	32.65	5.21	0.13	—	7	8.25	20	22.09	32.65	5.21	22.44	542	0.110
30	22.24	32.70	5.09	0.13	—	12	8.32	30	22.24	32.70	5.09	22.43	542	0.164
50	15.64	33.59	3.85	0.41	—	24	8.20	50	15.64	33.59	3.85	24.77	319	0.250

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	12	1605	62	04	08	NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	8	1011.6	20.0	17.0		4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.90	32.20	5.32	0.03	—	8	8.20	0	21.90	32.20	5.32	22.15	568	0.000
10	21.81	32.16	5.09	0.07	—	5	8.19	10	21.81	32.16	5.09	22.14	569	0.057
20	21.85	32.23	5.21	0.01	—	4	8.23	20	21.85	32.23	5.21	22.18	566	0.114
30	21.84	32.44	5.09	0.03	—	2	8.29	30	21.84	32.44	5.09	22.34	551	0.170
50	15.83	33.63	5.31	0.27	—	3	8.20	50	15.83	33.63	5.31	24.75	321	0.257

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	12	1755	84			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1011.2	20.4	17.2		3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	22.50	32.89	5.21	0.01	—	6	8.08	0	22.50	32.89	5.21	22.50	535	0.000
10	22.42	32.91	5.32	0.01	—	5	8.24	10	22.42	32.91	5.32	22.54	531	0.053
20	22.50	33.03	4.98	—	—	18	8.32	20	22.50	33.03	4.98	22.60	526	0.106
30	23.29	33.08	4.98	0.08	—	4	8.31	30	23.29	33.08	4.98	22.42	543	0.160
50	20.93	33.47	4.64	0.03	—	1	8.35	50	20.93	33.47	4.64	23.37	452	0.260
75	16.32	33.95	3.62	0.39	—	15	8.28	75	16.32	33.95	3.62	24.89	307	0.855

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	12	2055	103	03	17	NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
EE	12	1010.1	22.0	18.0	Ci Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	23.30	33.64	5.21	- -	—	11	8.43	0	23.30	33.64	5.21	22.84	502	0.000
10	23.67	33.50	4.75	—	—	16	8.41	10	23.67	33.50	4.75	22.62	523	0.051
20	23.66	33.50	4.87	—	—	2	8.44	20	23.66	33.50	4.87	22.63	523	0.104
30	23.75	33.57	4.98	—	—	3	8.40	30	23.75	33.57	4.98	22.65	521	0.156
50	23.72	33.71	4.98	—	—	4	8.38	50	23.72	33.71	4.98	22.77	509	0.259
75	18.19	33.27	4.19	—	—	11	8.28	75	18.19	33.27	4.19	23.92	400	0.373
100	16.42	34.23	3.17	—	—	16	8.20	100	16.42	34.23	3.17	25.08	289	0.460

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	12	2330	123	03	18	NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1010.1	21.4	17.4	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4 P μgat/L	NO_2 N μgat/L	SiO_2 Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⊿D dyn. m
0	24.00	33.81	5.21	·	—	3	8.14	0	24.00	33.81	5.21	22.76	510	0.000
10	24.20	33.74	4.88	0.13	—	1	8.29	10	24.20	33.74	4.88	22.65	521	0.052
20	24.28	33.75	4.98	0.04	·	2	8.30	20	24.28	33.75	4.98	22.64	522	0.104
30	24.25	33.73	4.75	—	—	1	8.17	30	24.25	33.73	4.75	22.63	523	0.156
50	24.23	33.74	4.98	—	—	6	8.21	50	24.23	33.74	4.98	22·64	522	0.261
75	22.91	33.96	4.53	0.04	—	4	8.25	75	22.91	33.96	4.53	23 19	469	0.385
100	18.20	33.98	3.74	0.01	—	20	8.30	100	18.20	33.98	3.74	24.46	348	0.488
120	16.82	34.23	3.62	0.35	—	17	8.23							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	13	0200	160			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	07	1010.1	21.5	18.9	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	24.00	33.82	5.89	0.16	—	9	8.00	0	24.00	33.82	5.89	22.77	509	0.000
10	23.88	33.73	5.09	0.17	—	5	8.12	10	23.85	33.73	5.09	22.75	511	0.051
20	23.88	33.72	4.88	0.13	—	4	8.22	20	23.88	33.72	4.88	22.73	513	0.102
30	23.83	33.71	4.88	0.03	—	6	8.31	30	23.83	33.71	4.88	22.74	512	0.154
50	23.68	33.70	4.88	0.12	—	5	8.31	50	23.68	33.70	4.88	22.78	508	0.256
75	21.55	33.79	4.30	—	—	7	8.32	75	21.55	33.79	4.30	23.45	444	0.376
100	19.83	34.23	4.08	0.23	—	11	8.34	100	19.83	34.23	4.08	24.24	369	0.478
125	17.59	34.25	3.62	—	—	25	8.19	125	17.59	34.25	3.62	24.82	314	0.565
150	14.67	34.22	3.62	0.44	—	23	8.19	150	14.67	34.22	3.62	25.46	253	0.637

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	12	0455	144			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	8	1010.1	22.0	18.1	Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	24.20	33.85	5.89	0.08	—	6	8.15	0	24.20	33.85	5.89	22.74	512	0.000
10	24.13	33.79	5.09	0.08	—	5	8.32	10	24.13	33.79	5.09	22.71	515	0.051
20	24.12	33.80	4.98	0.15	—	3	8.32	20	24.12	33.80	4.98	22.72	514	0.103
30	24.11	33.77	5.09	0.05	—	3	8.13	30	24.11	33.77	5.09	22.70	516	0.155
50	22.73	33.86	4.53	0.11	—	7	8.13	50	22.73	33.86	4.53	23.17	471	0.254
75	20.79	34.24	4.19	—	—	12	8.08	75	20.79	34.24	4.19	23.99	393	0.362
100	18.06	34.12	3.96	0.35	—	9	8.13	100	18.06	34.37	3.96	24.80	316	0.451
125	16.67	34.26	3.74	0.45	—	12	8.18	125	16.67	34.26	3.74	25.04	293	0.528

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	12	0730	181			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	6	1010.0	21.9	18.2	AlCu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	24.20	33.72	5.09	0.09	—	2	8.02	0	24.20	33.72	5.09	22.64	522	0.000
10	24.21	33.73	4.98	0.04	—	1	8.90	10	24.21	33.73	4.98	22.64	522	0.052
20	24.22	33.71	4.75	0.13	—	3	8.32	20	24.22	33.71	4.75	22.62	524	0.105
30	24.17	33.73	4.75	0.17	—	3	8.41	30	24.17	33.73	4.75	22.65	521	0.157
50	22.29	33.79	4.41	0.19	—	5	8.27	50	22.29	33.79	4.41	23.24	465	0.256
75	20.05	33.87	4.19	0.21	—	7	8.26	75	20.05	33.87	4.19	23.92	400	0.364
100	19.03	34.15	3.96	0.29	—	13	8.19	100	19.03	34.15	3.96	24.39	355	0.459
125	17.24	34.27	3.96	0.23	—	18	8.19	125	17.24	34.27	3.96	24.92	304	0.543
150	15.95	34.25	—	—	—	—	—	150	15.95	34.25	3.93	25.20	278	0.616
180	14.98	34.20	3.85	0.43	—	20	8.21							

204선 해 양 관 측 성 적

Oceanographic Data, Line 204

4월(April) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	02	2150	40			S1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1023.0	15.5		Ci St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	12.00	34.70	5.09	0.35	—	4	8.30	0	12.00	34.70	5.09	26.38	165	0.000
10	12.17	34.70	5.19	0.65	—	6	8.28	10	12.17	34.70	5.19	26.34	169	0.018
20	11.49	34.68	5.19	0.41	—	4	8.25	20	11.49	34.68	5.19	26.46	158	0.033
30	11.31	34.68	4.98	0.45	—	6	8.30	30	11.31	34.68	4.98	26.49	155	0.049
40	11.25	34.66	4.96	0.52	—	6	8.30							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	02	2020	35			S 1	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1023.0	12.8		Ci St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	11.80	34.47	5.19	0.49	—	5	8.29	0	11.80	34.47	5.19	26.23	179	0.000
10	10.61	34.42	5.19	0.56	—	6	8.27	10	11.61	34.42	5.19	26.41	162	0.017
20	10.56	34.43	5.00	0.59	—	6	8.29	20	11.56	34.43	5.00	26.43	161	0.033
35	10.50	34.42	5.00	0.65	—	6	8.28	30	10.51	34.42	4.96	26.43	161	0.049

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	02	1850	58			S 2	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Ditection	Force		Dry	Wet	Type	Amount	
S	3	1023.0	15.6		Ci St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	13.40	34.79	4.94	0.32	—	5	8.30	0	13.40	34.76	4.94	26.14	187	0.000
10	13.59	34.76	4.96	0.03	—	5	8.31	10	13.59	34.76	4.96	26.11	191	0.019
20	14.81	34.71	4.96	0.49	—	5	8.32	20	14.81	34.71	4.96	25.81	220	0.040
30	11.51	34.58	4.98	0.59	—	5	8.28	30	11.51	34.58	4.98	26.37	166	0.059
58	11.30	34.51	4.57	0.70	—	—	8.25	50	10.00	34.48	4.76	26.57	148	0.090

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	02	16.30	84	5	7	S 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	1023	14.8		Ci St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.00	34.81	4.88	0.43	—	5	8.28	0	14.00	34.81	4.88	26.06	196	0.000
10	14.08	34.81	4.88	0.36	—	5	8.30	10	14.08	34.81	4.88	29.04	197	0.020
20	13.82	34.75	4.82	0.28	—	5	8.31	20	13.82	34.75	4.82	26.05	179	0.039
30	14.00	34.75	4.71	0.25	—	5	8.31	30	14.00	34.75	4.71	26.01	201	0.059
50	13.67	34.75	4.67	0.32	—	4	8.30	50	13.67	34.75	4.67	26.08	195	0.099
75	13.14	34.72	4.86	0.37	—	5	8.35	75	13.14	34.72	4.86	26.17	187	0.147
83	13.13	34.71	4.84	0.21	—	5	8.30							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	02	1530	96	5	8	S 4	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	5	1024.0	15.5		Ci St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.40	35.03	4.36	0.33	—	6	8.20	0	15.40	35.03	4.36	25.92	208	0.000
10	15.31	35.03	4.36	0.25	—	5	8.20	10	15.31	35.03	4.36	25.94	207	0.021
20	15.22	35.01	4.86	0.37	—	5	8.29	20	15.22	35.01	4.86	25.95	207	0.042
30	15.14	35.00	4.36	0.36	—	5	8.29	30	15.14	35.00	4.36	25.96	206	0.062
50	15.16	34.97	4.32	0.35	—	5	8.28	50	15.16	34.97	4.32	25.93	209	0.104
75	15.11	34.98	4.19	0.47	—	6	8.30	75	15.11	34.98	4.19	25.95	208	0.156
96	15.60	34.98	4.17	0.48	—	6	8.28							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	2	1410	120	5	8	S 3	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	5	1024.0	15.2		Ci	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.90	34.97	4.51	0.23	—	7	8.30	0	14.90	34.96	4.51	25.99	202	0.000
10	14.78	34.97	4.36	0.29	—	7	8.32	10	14.78	34.97	4.36	26.02	200	0.020
20	14.95	34.98	4.36	0.28	—	5	8.30	20	14.95	34.98	4.36	25.99	203	0.040
30	14.86	34.98	4.36	0.61	—	6	8.24	30	14.86	34.98	4.36	26.01	201	0.061
50	14.93	34.98	4.36	0.59	—	5	8.24	50	14.93	34.98	4.36	25.99	204	0.101
75	14.98	34.98	4.27	0.28	—	5	8.30	75	14.98	34.98	4.27	25.98	205	0.152
100	15.05	34.96	4.27	0.36	—	5	8.30	100	15.05	34.96	4.27	25.95	209	0.204
120	14.91	34.97	4.25	0.52	—	5	8.28							

7월(July) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	17	1400	42	04	7	SW 2	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S W	2	1017.0	24.6		Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	22.70	32.95	5.02	0.67	0.07	85	7.85	0	22.70	32.95	5.02	22.49	536	0.000
10	23.95	33.24	5.28	0.63	0.12	86	7.82	10	23.95	33.24	5.28	22.35	550	0.054
20	19.77	34.02	4.48	0.84	0.13	116	7.60	20	19.77	34.02	4.48	24.10	383	0.101
30	19.06	34.03	4.30	0.88	0.15	95	7.54	30	19.06	34.03	4.30	24.29	364	0.138
44	14.81	33.77	4.20	0.69	0.10	76	7.50							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	17	1535	31	03	07	0	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1017.0	24.2		Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	21.56	32.18	5.40	0.72	0.08	88	7.60	0	21.56	32.18	5.40	22.22	561	0.000
10	22.44	32.78	5.42	0.73	0.02	89	7.47	10	22.44	32.78	5.42	22.43	541	0.055
20	20.82	32.90	5.30	0.89	0.01	83	7.47	20	20.82	32.90	5.30	22.97	491	0.107
30	16.56	33.38	4.88	0.10	0.06	83	7.50	30	16.56	33.38	4.88	24.40	354	0.149

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	17	1700	51	3	8	0	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1017.0	24.1		Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt/cm^3/g$	△D dyn. m
0	22.40	32.43	5.32	0.60	0.08	82	7.80	0	22.40	32.43	5.32	22.18	565	0.000
10	21.19	32.52	5.40	0.60	0.07	80	7.66	10	21.19	32.52	5.40	22.58	527	0.055
20	18.18	33.02	5.52	0.45	0.06	107	7.52	20	18.18	33.02	5.52	23.73	417	0.102
30	16.07	32.84	5.60	0.48	0.06	104	7.72	30	16.07	32.84	5.60	24.09	383	0.142
50	13.69	32.25	5.10	0.73	0.08	63	7.70	50	13.69	32.25	5.10	24.15	318	0.218

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	18	0800	84	4	10	S 2	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1016.0	25.2		Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt/cm^3/g$	△D dyn. m
0	23.95	33.24	4.80	0.45	0.08	103	7.60	0	23.95	33.24	4.80	22.35	549	0.000
10	22.11	34.30	5.36	0.45	0.08	88	7.53	10	22.11	34.30	5.36	23.68	423	0.049
20	18.01	33.67	5.70	0.45	0.08	76	7.50	20	18.01	33.67	5.70	24.27	366	0.088
30	16.38	33.19	5.88	0.53	0.10	73	7.50	30	16.38	33.19	5.88	24.29	364	0.125
50	15.30	33.13	5.42	0.53	0.13	70	7.41	50	15.30	33.13	5.42	24.49	345	0.196
80	14.70	33.09	4.88	0.53	0.14	62	7.32	75	14.71	33.09	4.96	24.58	337	0.282

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	18	1000	90	3	13	S 1	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1016.0	25.2		Ci	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	24.42	29.47	4.90	0.40	0.06	82	7.52	0	24.42	29.47	4.90	19.37	835	0.000
10	22.90	29.97	4.78	0.47	0.12	53	7.50	10	22.90	29.97	4.78	20.18	757	0.080
20	20.18	32.81	4.90	0.48	0.08	53	7.58	20	20.18	32.81	4.90	23.07	481	0.142
30	18.27	33.39	4.82	0.53	5.04	58	7.63	30	18.27	33.39	4.82	23.99	393	0.185
50	17.02	34.05	4.66	0.65	0.03	76	7.40	50	17.02	34.05	4.66	24.80	316	0.256
75	15.20	34.49	4.28	0.65	0.02	70	7.45	75	15.20	34.49	4.28	25.55	244	0.327
90	15.29	34.51	4.30	0.55	0.02	68	7.50							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	18	1110	118	3	13	S 4	S 4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	1016.0	24.8		Ci	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	24.32	29.90	5.32	0.47	0.15	73	7.58	0	24.32	29.90	5.32	19.72	801	0.000
10	22.84	29.00	5.26	0.47	0.06	67	7.64	10	22.84	29.00	5.26	19.47	826	0.081
20	21.07	34.09	5.30	0.48	0.02	63	7.83	20	21.07	34.09	5.30	23.80	411	0.143
30	19.72	34.52	5.48	0.48	0.04	60	7.85	30	19.72	34.52	5.48	24.49	345	0.181
50	16.69	34.52	5.60	0.48	0.05	61	7.84	50	16.69	34.52	5.60	25.24	274	0.243
75	14.83	34.52	5.62	0.48	0.05	62	7.82	75	14.83	34.52	5.62	25.66	234	0.307
100	15.34	31.33	4.90	0.48	0.03	61	7.73	100	—	—	4.90	—	—	—
115	16.06	31.42	4.26	0.49	0.02	57	7.67							

203선 해 양 관 측 성 적

Oceanographic Data, Line 203

4월(April) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	02	0950	65	5	9	E 1	E 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	2	1027.0	13.2		Ci	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.50	34.72	4.90	0.29	—	4	8.30	0	13.50	34.72	4.90	26.09	192	0.000
10	13.29	34.71	5.09	0.27	—	5	8.29	10	13.29	34.71	5.09	26.13	189	0.019
20	13.04	34.72	4.88	0.39	—	5	8.30	20	13.04	34.72	4.88	26.19	184	0.038
30	13.22	34.71	4.88	0.49	—	7	8.31	30	13.22	34.71	4.88	26.41	188	0.056
50	12.30	34.73	4.88	0.65	—	7	8.30	50	12.30	34.73	4.88	26.34	170	0.092
65	12.96	34.71	4.75	0.40	—	5	8.31							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	01	0830	102	5	8	N 2	N 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	3	1026.0	11.3		Ci	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.70	34.70	4.96	0.56	—	5	8.30	0	10.70	34.70	4.96	26.62	143	0.000
10	12.72	34.71	4.88	0.24	—	4	2.29	10	12.72	34.71	4.88	26.24	178	0.016
20	12.89	34.17	4.73	0.39	—	5	8.32	20	12.89	34.71	4.73	26.21	182	0.034
30	12.86	34.71	4.88	0.45	—	5	8.25	30	12.86	34.71	4.88	26.22	181	0.052
50	12.92	34.72	4.82	0.45	—	5	8.28	50	12.92	34.72	4.82	26.21	182	0.089
75	12.88	34.70	4.80	0.47	—	5	8.27	75	12.88	34.70	4.80	26.20	184	0.135
102	12.92	34.74	4.78	0.25	—	5	8.27	100	12.91	34.73	4.78	26.22	183	0.181

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	2	0710	130	5	7	NNW 1	N 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	2	1026.0	10.2		Ci St	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	13.10	34.68	4.26	0.21	—	5	8.30	0	13.10	34.68	4.26	26.14	187	0.000
10	13.45	34.69	4.69	0.31	—	6	8.30	10	13.45	34.69	4.69	26.08	194	0.019
20	13.32	34.68	5.62	0.40	—	5	8.34	20	13.32	34.68	5.62	26.10	192	0.038
30	13.20	34.67	5.19	0.32	—	5	8.30	30	13.20	34.67	5.19	26.12	191	0.058
50	13.11	34.67	4.99	0.45	—	6	8.30	50	13.11	34.67	4.99	26.13	190	0.096
75	13.13	34.67	4.93	0.60	—	6	8.30	75	13.13	34.67	4.93	26.13	191	0.143
100	12.83	34.67	4.88	0.36	—	6	8.30	100	12.83	34.67	4.88	26.19	186	0.191
130	12.72	34.72	4.78	0.24	—	6	8.29	125	12.71	34.74	4.80	26.24	182	0.237

7월(July) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	19	1200	55	3	9	SW 4	SW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1013.0	23.1		Ci Cu	2	8

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	21.80	31.32	5.42	0.40	0.06	64	8.00	0	21.80	31.32	5.42	21.51	630	0.000
10	20.28	31.43	5.58	0.53	0.07	62	7.93	10	20.28	31.43	5.58	22.00	583	0.061
20	17.98	32.03	5.66	0.53	0.09	62	7.90	20	17.98	32.03	5.66	23.03	485	0.114
30	15.87	32.12	5.82	0.59	0.10	44	7.90	30	15.87	32.12	5.82	23.59	431	0.160
50	13.05	32.23	5.40	0.79	0.08	48	7.90	50	13.05	32.23	5.40	24.26	367	0.240

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	19	1400	98	3	13	SW 4	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1013.0	26.2		Ci Cu	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⌒D dyn. m
0	23.90	30.55	5.52	0.37	0.01	63	7.70	0	23.90	30.55	5.52	20.33	742	0.000
10	24.21	32.69	5.48	0.33	0.01	49	7.82	10	24.21	32.69	5.48	21.86	597	0.067
20	19.23	32.52	5.52	0.41	0.02	43	7.90	20	19.23	32.52	5.52	23.09	479	0.121
30	16.25	33.34	5.56	0.67	0.08	45	7.90	30	16.25	33.34	5.56	24.44	350	0.162
50	13.08	33.57	5.54	0.63	0.02	39	7.83	50	13.08	33.57	5.54	25.29	269	0.224
75	12.66	33.55	5.28	0.64	0.01	51	7.87	75	12.66	33.55	5.28	25.36	262	0.291
95	12.67	33.55	5.26	0.61	0.02	57	7.50							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	19	1545	130	3	14	SW 3	SW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1012.0	27.2		Ci Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⌒D dyn. m
0	25.28	30.44	5.22	0.47	0.17	47	7.72	0	25.28	30.44	5.22	19.84	789	0.000
10	24.84	30.51	5.20	0.53	0.12	28	7.70	10	24.84	30.51	5.20	20.03	772	0.078
20	23.51	31.22	5.22	0.69	0.02	88	7.07	20	23.51	31.22	5.22	20.95	684	0.151
30	20.95	33.01	5.40	0.53	0.14	51	8.02	30	20.95	33.01	5.40	23.02	486	0.210
50	18.43	33.95	5.32	0.73	0.14	48	0.00	50	18.43	33.95	5.32	24.38	356	0.294
100	13.07	33.56	4.86	0.73	0.10	53	7.78	100	13.07	33.56	4.86	25.28	270	0.448
125	12.55	33.55	4.70	0.76	0.09	44	7.78	125	12.55	33.55	4.70	25.38	261	0.510

313선 해 양 관 측 성 적

Oceanographic Data, Line 313

3月(March) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wav	Swell
02	31	1535	88	5	7	NE 4	NE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wer	Type	Amount	
ENE	5	1019.0	9.6		Cu Nb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	14.10	34.90	4.72	0.12	—	6	8.23	0	14.10	34.90	4.72	26.11	191	0.000
10	12.45	34.90	4.71	0.19	—	6	8.23	10	12.54	34.90	4.71	26.43	161	0.018
20	12.90	34.34	4.69	0.19	—	6	8.23	20	12.90	34.34	4.69	25.92	209	0.036
30	12.53	34.89	4.75	0.22	—	—	8.24	30	12.53	34.89	4.75	26.42	162	0.058
50	12.57	34.90	4.69	0.28	—	5	8.28	50	12.57	34.90	4.69	26.42	163	0.087
75	12.33	34.89	4.69	0.23	—	5	8.30	75	12.33	34.89	4.69	26.46	159	0.128
88	12.20	34.88	4.69	0.19	—	5	8.30							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	31	1410	96	5	04	NE 3	NE 2

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	5	1019.0	9.5		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	ΔD dyn. m
0	14.00	34.75	4.69	0.49	—	4	8.18	0	14.00	34.75	4.69	26.01	200	0.000
10	13.88	34.87	4.69	0.12	—	6	8.27	10	13.88	34.87	4.69	26.13	189	0.019
20	14.38	34.86	4.69	0.27	—	5	8.26	20	14.38	34.26	4.69	26.02	200	0.039
30	14.26	34.88	4.67	—	—	—	8.32	30	14.26	34.88	4.67	26.06	196	0.059
50	14.40	34.88	4.59	0.25	—	6	8.25	50	14.40	34.88	4.59	26.03	200	0.099
75	14.45	34.88	4.59	0.15	—	6	8.27	75	14.45	34.88	4.59	26.02	202	0.149
96	14.06	34.87	4.57	0.56	—	6	8.23	100						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	31	0915	96	5	5	SE 2	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ESE	4	1021.0	7.8		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.50	34.67	4.93	0.21	—	4	8.20	0	13.50	34.67	4.93	26.05	196	0.000
10	12.46	34.70	4.86	0.19	—	4	8.18	10	12.46	34.70	4.86	26.29	174	0.019
20	13.81	34.72	4.88	0.23	—	6	8.18	20	13.81	34.72	4.88	26.03	199	0.039
30	13.83	34.72	4.71	0.39	—	4	8.20	30	13.83	34.72	4.71	26.02	200	0.057
50	13.90	34.73	4.61	0.11	—	5	8.18	50	13.90	34.73	4.61	26.02	201	0.097
75	13.81	34.72	4.57	0.36	—	4	8.25	75	13.81	34.72	4.57	26.03	200	0.148
96	13.71	34.68	4.55	0.21	—	4	8.28							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	31	0850	93	5	2	S 3	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	5	1021.0	8.2		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	13.10	34.58	4.93	0.16	—	5	8.19	0	13.10	34.58	4.93	26.09	195	0.000
10	13.13	34.63	4.67	0.21	—	6	8.19	10	12.13	34.63	4.67	26.30	173	0.018
20	13.13	34.64	4.68	0.23	—	5	8.24	20	13.13	34.64	4.68	26.11	191	0.037
30	13.34	34.64	4.88	0.37	—	5	8.26	30	13.34	34.64	4.88	26.06	196	0.056
50	13.41	34.64	4.76	0.53	—	5	8.20	50	13.41	34.64	4.76	26.05	198	0.096
75	13.33	34.64	4.93	0.37	—	5	8.20	75	13.33	34.64	4.93	26.07	197	0.145
93	12.90	34.64	4.90	0.12	—	5	8.20							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	31	0630	93			S 3	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	5	1022.0	8.2		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	12.50	34.62	4.96	0.45	—	6	8.19	0	12.50	34.62	4.96	26.22	181	0.000
10	12.39	34.63	5.27	0.29	—	5	8.24	10	12.39	34.63	5.27	26.25	178	0.018
20	12.80	34.62	4.88	0.24	—	4	8.24	20	12.80	34.62	4.88	62.16	187	0.036
30	12.79	34.65	4.88	0.25	—	9	8.24	30	12.79	34.65	4.88	26.18	518	0.055
50	12.45	34.56	5.06	0.21	—	7	8.24	50	12.45	34.56	5.06	26.18	185	0.092
75	12.05	34.53	4.92	0.21	—	6	8.25	75	12.05	34.53	4.92	26.23	181	0.138
93	11.88	34.65	5.00	0.24	—	5	8.25							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	31	0315	80			S 3	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	5	1022.0	8.0		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_4-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	11.60	34.48	5.19	0.28	—	5	8.26	0	11.60	34.48	5.19	26.28	174	0.000
10	11.99	34.43	5.19	0.63	—	6	8.28	10	11.99	34.43	5.19	26.17	185	0.018
20	11.72	34.41	4.98	0.56	—	6	8.28	20	11.72	34.41	4.98	26.20	182	0.036
30	11.39	34.41	4.83	0.71	—	6	8.25	30	11.39	34.41	4.83	26.26	177	0.054
50	11.35	34.42	5.09	0.68	—	6	8.24	50	11.35	34.42	5.09	26.28	176	0.090
80	11.23	34.42	3.98	0.59	—	7	8.20	75	11.25	34.42	5.04	26.30	175	0.134

St No.	Date	Time	Depth	Water Color	Water trans.	Wave	Swell
08	31	0215	83			SE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	5	1023.0	8.5		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	11.50	34.44	5.21	0.12	—	5	8.08	0	11.50	34.44	5.21	26.27	176	0.000
10	11.80	34.32	5.04	0.40	—	5	8.12	10	11.80	34.32	5.04	26.12	190	0.018
20	11.44	34.40	5.11	0.45	—	6	8.18	20	11.44	34.40	5.11	26.25	178	0.037
30	11.41	34.39	4.98	0.48	—	6	8.20	30	11.41	34.39	4.98	26.25	178	0.055
50	11.37	34.39	4.96	0.85	—	5	8.20	50	11.37	34.49	4.96	26.25	178	0.090
83	11.28	34.41	4.96	0.19	—	5	8.28	75	11.30	34.40	4.96	26.27	177	0.135

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	31	0100	73			SE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amounrt	
SSE	5	1023.0	8.6		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	11.50	34.39	5.19	0.35	—	5	8.21	0	11.50	34.39	5.19	26.23	179	0.000
10	11.39	34.39	5.09	0.27	—	5	8.23	10	11.39	34.39	5.09	26.25	178	0.018
20	11.23	34.39	5.09	0.52	—	7	8.26	20	11.23	34.39	5.09	26.28	175	0.036
30	11.02	34.39	5.06	0.37	—	6	8.27	30	11.02	34.39	5.06	26.32	172	0.053
50	11.04	34.42	4.96	0.21	—	5	8.27	50	11.04	34.42	4.96	26.34	170	0.087
75	10.97	34.43	5.19	0.19	—	6	828							

7월(July) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	22	1020	34	4	10	S 3	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	3	1013.0	26.4		Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.52	30.04	4.64	0.24	—	44	7.98	0	25.52	30.04	4.64	19.47	825	0.000
10	25.48	30.01	4.72	0.27	—	57	8.10	10	25.48	30.01	4.72	19.46	827	0.083
20	20.79	31.86	5.56	0.28	—	65	8.09	20	20.79	31.86	5.56	22.19	565	0.152
30	16.95	32.79	5.54	0.40	—	63	8.03	30	16.95	32.79	5.54	23.85	406	0.201
50	15.45	33.83	5.08	0.39	—	64	8.10	50	15.45	33.83	5.08	24.99	298	0.271
80	15.44	33.92	4.70	0.39	—	62	8.02	75	15.25	34.02	4.74	25.19	279	0.344

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	22	1200	92	4	12	S 3	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	3	1012.0	25.9		Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.12	30.34	4.90	0.31	—	49	8.02	0	25.12	30.34	4.90	19.82	792	0.000
10	24.70	31.93	5.26	0.35	—	61	7.90	10	24.70	31.93	5.26	21.14	665	0.073
20	23.07	31.57	5.32	0.41	—	78	7.98	20	23.07	31.57	5.32	21.34	646	0.139
30	16.41	31.98	5.24	0.32	—	68	7.93	30	16.41	31.98	5.24	23.36	453	0.194
50	13.04	33.42	5.16	0.96	—	55	7.98	50	13.04	33.42	5.16	25.18	280	0.267
75	13.27	33.53	5.12	0.76	—	66	7.95	75	13.37	33.53	5.12	25.20	278	0.337
90	13.24	33.51	4.80	0.13	—	76	7.60							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	22	1300	93	4	5	S 2	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		D.y	Wet	Type	Amount	
S	2	1012.0	26.9		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	25.72	30.76	4.92	0.33	—	64	7.70	0	25.72	30.76	4.92	19.95	779	0.000
10	25.54	30.77	5.12	0.36	—	73	7.86	10	25.54	30.77	5.12	20.01	773	0.078
20	15.75	32.16	5.30	0.40	—	69	7.80	20	15.75	32.16	5.30	23.64	426	0.138
30	13.75	33.20	5.22	0.33	—	80	7.63	30	13.75	33.20	5.22	24.87	309	0.175
50	12.78	33.32	5.20	0.48	—	81	7.70	50	12.78	33.32	5.20	25.16	281	0.234
75	12.73	33.33	5.22	0.51	—	61	7.70	75	12.73	33.33	5.22	25.17	281	0.304
90	12.65	33.32	5.06	0.33	—	76	7.78							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	22	1650	83	4	11	S 2	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	2	1013.0	26.83		CuNb	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	26.20	30.69	4.94	0.27	—	86	7.90	0	26.20	30.69	4.94	19.75	798	0.000
10	25.77	30.98	5.00	0.40	—	63	7.90	10	25.77	30.98	5.00	20.10	765	0.078
20	23.58	30.96	5.12	0.39	—	68	7.90	20	23.58	30.96	5.12	20.74	704	0.152
30	14.23	33.40	5.28	0.41	—	133	7.82	30	14.23	33.40	5.28	24.92	304	0.202
50	12.71	33.36	5.30	0.47	—	115	7.68	50	12.71	33.36	5.30	25.20	278	0.261
80	11.02	33.35	5.38	0.51	—	80	7.68	75	11.25	33.34	5.36	25.47	252	0.327

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	22	1850	81	4	4	S 2	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	2	1013.0	26.0		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	25.74	31.23	4.88	0.35	—	83	7.83	0	25.74	31.23	4.88	20.30	746	0.000
10	24.59	31.14	5.00	0.43	—	91	7.80	10	24.59	31.14	5.00	20.58	719	0.073
20	15.05	32.15	4.92	0.40	—	73	7.77	20	15.05	32.19	4.92	23.81	410	0.130
30	12.39	32.89	5.04	0.32	—	71	7.82	30	12.39	32.89	5.04	24.90	306	0.166
50	12.39	33.27	5.16	0.32	—	89	7.90	50	12.39	33.27	5.16	25.19	279	0.224
80	12.15	33.13	5.18	0.40	—	68	7.93	75	12.21	33.21	5.19	25.18	280	0.294

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	22	2000	72			S 3	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1010.0	26.6		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	25.70	31.18	5.06	0.29	—	63	7.88	0	25.70	31.18	5.06	20.27	748	0.000
10	19.66	31.08	5.00	0.32	—	96	7.70	10	19.66	31.08	5.00	21.89	593	0.067
20	16.04	31.64	5.62	0.39	—	69	7.58	20	16.04	31.64	5.62	23.18	470	0.120
30	16.06	32.46	5.70	0.36	—	102	7.67	30	13.97	32.46	5.70	24.25	368	0.162
50	12.40	33.21	5.36	0.44	—	81	7.72	50	12.40	33.21	5.36	25.14	283	0.228
70	12.48	33.25	5.36	0.35	—	162	7.73	75						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	22	2150	76			S 3	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	3	1010.0	26.8		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	25.78	31.30	4.78	0.31	—	43	7.70	0	25.78	31.30	4.78	20.34	742	0.000
10	25.40	31.31	4.70	0.49	—	32	7.80	10	25.40	31.31	4.70	20.45	730	0.074
20	17.41	31.39	5.12	0.53	—	45	7.88	20	17.41	31.39	5.12	22.68	518	0.136
30	13.87	32.25	5.16	0.53	—	57	7.88	30	13.87	32.25	5.16	24.11	381	0.181
50	12.43	33.24	5.16	0.52	—	81	7.90	50	12.43	33.24	5.16	25.16	281	0.248
75	12.46	33.29	5.18	0.35	—	46	7.80	75	12.46	33.29	5.18	25.20	278	0.318

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	22	2330	72			S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	1011.0	26.5		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	25.09	31.34	4.92	0.37	—	57	7.80	0	25.09	31.34	4.92	20.58	719	0.000
10	25.31	31.29	4.78	0.41	—	51	7.98	10	25.31	31.29	4.78	20.47	729	0.072
20	19.15	31.38	4.86	0.41	—	43	7.97	20	19.15	31.38	4.86	22.25	560	0.137
30	13.42	32.69	4.90	0.45	—	49	7.70	30	13.42	32.69	4.90	24.54	340	0.182
50	11.42	33.21	5.00	0.40	—	66	7.70	50	11.42	33.21	5.00	25.33	265	0.243
70	11.44	33.21	5.08	0.44	—	58	7.70							

314선 해 양 관 측 성 적

Oceanographic Data, Line 314

3월(March) 조사선(Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
00	27	1700	140	1	14	N 6	

Wind		Baro.	Air Temp.		Cloud		Weatehr
Direction	Force		Dry	Wet	Type	Amount	
N	21	1018.2	12.3	9.6	Ci Cu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z *m*	T ℃	S ‰	O_2 ㏄	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z *m*	T ℃	S ‰	O_2 ㏄	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	15.90	34.94	6.23	0.40	—	—	8.41	0	15.90	34.94	6.23	25.74	225	0.000
10	16.41	34.74	6.81	0.36	—	—	8.42	10	16.41	34.74	6.81	25.47	252	0.024
20	16.42	34.73	6.83	0.32	—	—	8.51	20	16.42	34.73	6.83	25.46	253	0.049
30	16.41	34.73	7.41	0.39	—	—	8.5	130	16.41	34.73	7.41	25.46	253	0.075
50	16.42	34.73	7.58	0.16	—	—	8.53	50	16.42	34.73	7.58	25.46	254	0.125
75	16.40	34.73	9.24	0.30	—	—	8.47	75	16.40	34.73	9.24	25.47	254	0.189
100	16.38	34.77	6.23	0.19	—	—	8.48	100	16.38	34.77	6.23	25.50	252	0.252
135	16.31	34.72	6.02	0.49	—	—	8.49	125	16.33	34.75	5.60	25.50	253	0.315

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	27	1950	153	01	14	N 6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	23	1017.8	11.5	10.0	Ci Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	16.60	34.93	5.83	0.39	—	—	8.49	0	16.60	34.93	5.83	25.57	242	0.000
10	17.25	34.75	5.66	0.15	—	—	8.50	10	17.25	34.75	5.66	25.28	269	0.026
20	17.28	34.74	6.44	0.05	—	—	8.52	20	17.28	34.74	6.44	25.27	271	0.053
30	17.26	34.74	5.89	0.25	—	—	8.52	30	17.26	34.74	5.89	25.27	272	0.080
50	16.59	34.72	6.58	0.35	—	—	8.51	50	16.59	34.72	6.58	25.42	258	0.133
75	16.42	34.72	6.54	0.45	—	—	8.56	75	16.42	34.72	6.54	25.45	255	0.197
100	16.24	34.71	6.12	0.52	—	—	8.55	100	16.24	34.71	6.12	25.49	253	0.261
—	—	—	—	—	—	—	—	125	15.68	34.68	6.07	25.59	243	0.323
145	14.98	34.65	6.29	0.72	—	—	8.55							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	27	2200	127	1	12	N 6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	16	1017.9	12.0	9.5	Ci Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	16.30	34.86	6.35	0.25	—	—	8.57	0	16.30	34.86	6.35	25.59	240	0.000
10	16.94	34.78	6.31	0.25	—	—	8.58	10	16.94	34.78	6.31	25.38	261	0.025
20	16.43	34.75	7.43	0.23	—	—	8.59	20	16.43	34.75	7.43	25.48	251	0.051
30	16.52	34.72	7.14	0.16	—	—	8.53	30	16.52	34.72	7.14	25.43	256	0.076
50	16.16	34.71	6.76	0.16	—	—	8.52	50	16.16	34.71	6.76	25.51	249	0.127
75	16.12	34.72	8.20	0.52	—	—	8.53	75	16.12	34.72	8.20	25.52	249	0.189
100	16.06	34.70	7.92	0.21	—	—	8.52	100	16.06	34.70	7.92	25.52	250	0.252
125	15.47	34.65	5.71	0.19	—	—	8.52	125	15.47	34.65	5.71	25.61	242	0.313

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	28	0200	103	2	11	NNE 6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	18	1018.2	10.1	8.0		1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	14.40	34.75	7.69	0.59	—	—	8.56	0	14.40	34.75	7.69	25.93	208	0.000
10	15.37	34.60	6.79	0.52	—	—	8.50	10	15.37	34.60	6.79	25.60	240	0.022
20	15.36	34.62	9.01	0.21	—	—	8.55	20	15.36	34.62	9.01	25.62	238	0.046
30	15.38	34.67	7.68	0.33	—	—	8.52	30	15.38	34.67	7.68	25.65	235	0.070
50	15.34	34.61	6.88	0.16	—	—	8.52	50	15.34	34.61	6.88	25.62	239	0.118
75	15.27	34.64	5.48	0.13	—	—	8.52	75	15.27	34.64	5.48	25.65	237	0.177
100	15.25	34.59	5.69	0.13	—	—	8.53	100	15.25	34.59	5.69	25.62	241	0.237
125	15.13	34.57	5.64	0.15	—	—	8.53							

4월 (April) 조사선 (Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	2	1235	106	03	11	N 1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	4	1014.3	15.6	15.4	Al St	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	16.20	34.77	5.81	0.15	—	—	8.33	0	16.20	34.77	5.81	25.54	244	0.000
10	16.38	34.96	5.81	0.19	—	—	8.35	10	16.38	34.96	5.81	25.65	235	0.024
20	16.33	34.98	5.45	0.21	—	—	8.37	20	16.33	34.98	5.45	25.67	233	0.047
30	16.33	34.97	5.54	0.19	—	—	8.38	30	16.33	34.97	5.54	25.67	234	0.071
50	16.00	34.94	5.56	0.23	—	—	8.38	50	16.00	34.94	5.56	25.72	229	0.117
75	15.21	34.80	6.23	0.01	—	—	8.34	75	15.21	34.70	6.23	25.79	223	0.174
100	15.20	34.79	5.61	0.13	—	—	8.33	100	15.20	34.79	5.61	25.79	224	0.230

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	2	1040	104			N 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	08	1013.7	15.7	15.4	AlSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	15.90	34.95	5.71	0.12	—	—	8.35	0	15.90	34.95	5.71	25.75	225	0.000
10	15.70	34.94	5.81	0.53	—	—	8.36	10	15.70	34.94	5.81	25.79	221	0.022
20	15.60	34.94	5.75	0.12	—	—	8.38	20	15.60	34.94	5.75	25.81	220	0.044
30	15.55	34.94	5.65	0.27	—	—	8.34	30	15.55	34.94	5.65	25.82	219	0.060
50	15.51	34.94	5.63	0.28	—	—	8.43	50	15.51	34.94	5.63	25.83	219	0.110
75	15.25	34.91	5.29	0.11	—	—	8.35	75	15.25	34.91	5.29	25.87	216	0.165
100	15.22	34.90	4.81	0.52	—	—	8.33	100	15.22	34.90	4.81	25.87	217	0.219

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	2	0830	106			N 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	16	1014.7	14.8	14.5	AlSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	15.40	34.83	5.76	0.22	—	—	8.34	0	15.40	34.83	5.76	25.77	223	0.000
10	15.13	34.83	5.56	0.44	—	—	8.45	10	15.13	34.83	5.56	25.83	217	0.022
20	15.22	34.82	5.61	0.56	—	—	8.45	20	15.22	34.82	5.61	25.80	220	0.044
30	15.19	34.86	5.48	0.12	—	—	8.34	30	15.19	34.96	5.48	25.84	217	0.066
50	15.20	34.86	5.50	0.32	—	—	8.34	50	15.20	34.86	5.50	25.84	218	0.109
75	15.17	34.87	5.61	0.25	—	—	8.32	75	15.17	34.87	5.61	25.85	218	0.164
100	15.26	34.88	5.48	0.21	—	—	8.32	100	15.26	34.88	5.48	25.84	219	0.219

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	2	0700	115			N 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	4	1016.2	13.8	13.6	AISt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	14.10	34.69	5.81	0.19	—	—	8.35	0	14.10	34.69	5.81	25.94	206	0.000
10	14.36	34.57	5.76	0.16	—	—	8.36	10	14.36	34.57	5.76	25.80	220	0.021
20	14.29	34.57	5.79	0.20	—	—	8.36	20	14.29	34.57	5.79	25.81	219	0.043
30	14.31	34.58	5.61	0.19	—	—	8.36	30	14.31	34.58	5.61	25.81	220	0.065
50	14.36	34.61	5.66	0.45	—	—	8.38	50	14.36	34.61	5.66	25.82	219	0.109
75	14.42	34.66	5.81	0.36	—	—	8.37	75	14.42	34.67	5.81	25.85	217	0.164
100	14.62	34.70	5.79	0.25	—	—	8.35	100	14.62	34.71	5.79	25.84	219	0.219
125	14.62	34.72	5.81	0.39	—	—	8.36							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	02	0400	106			N 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	10	1017.7	13.2	12.2	AISt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	PH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	14.00	34.75	5.97	0.32	—	—	8.31	0	14.00	34.75	5.97	26.01	200	0.000
10	14.24	34.64	5.81	0.68	—	—	8.35	10	14.24	34.64	5.81	25.88	213	0.021
20	14.24	34.64	6.10	0.24	—	—	8.42	20	14.24	34.64	6.10	25.88	213	0.042
30	14.23	34.65	5.98	0.45	—	—	8.38	30	14.23	34.65	5.98	25.88	213	0.063
50	14.25	34.65	6.12	0.11	—	—	8.37	50	14.25	34.65	6.12	25.88	214	0.106
75	14.22	34.69	5.75	0.19	—	—	8.38	75	14.22	34.69	5.75	25.92	211	0.159
100	14.21	34.67	5.73	0.19	—	—	8.38	100	14.21	34.67	5.73	25.91	213	0.212
103	13.72	34.58	5.71	0.19	—	—	—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	02	0235	98			NEE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NEE	13	1017.2	13.3	12.2	AlSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	13.70	34.75	6.03	0.27	—	—	8.35	0	13.70	34.75	6.03	26.07	194	0.000
10	13.67	34.57	6.12	0.12	—	—	8.36	10	13.67	34.57	6.12	25.94	207	0.020
20	13.70	34.57	6.14	0.16	—	—	8.36	20	13.70	34.57	6.14	25.93	208	0.041
30	13.70	34.56	5.90	0.28	—	—	8.36	30	13.70	34.56	5.90	25.93	209	0.062
50	13.73	34.22	6.17	1.18	—	—	8.36	50	13.73	34.22	6.17	25.66	235	0.106
75	13.71	34.58	5.59	0.21	—	—	8.38	75	13.71	34.58	5.59	25.94	209	0.162
100	13.72	34.47	6.17	0.17	—	—	—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	1	2300	78	03	05	NEE4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NEE	16	1017.2	11.9	10.8	AlSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	12.40	34.34	6.16	0.13	—	—	8.35	0	12.40	34.34	6.16	26.02	200	0.000
10	12.52	34.28	6.44	0.37	—	—	8.35	10	12.52	34.28	6.44	25.95	206	0.020
20	12.51	34.29	6.24	0.08	—	—	8.34	20	12.51	34.29	6.24	25.96	206	0.041
30	12.71	34.34	6.29	0.25	—	—	8.37	30	12.71	34.34	6.29	25.96	206	0.062
50	12.76	34.38	6.23	0.20	—	—	8.37	50	12.76	34.38	6.23	25.98	205	0.103
75	12.77	34.37	5.95	0.29	—	—	8.35	75	12.77	34.37	5.95	25.97	206	0.154

10월 (October) 조사선 (Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
00	13	1135	152			NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1009.7	22.0	17.5	AlCu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	23.08	33.75	4.64	0.27	—	3	7.96	0	23.08	33.75	4.64	22.98	489	0.000
10	23.70	33.73	4.98	0.65	—	2	8.20	10	23.70	33.73	4.98	22.79	507	0.050
20	23.70	33.72	4.87	1.16	—	2	8.52	20	23.70	33.72	4.87	22.78	508	0.101
30	23.70	33.70	5.09	1.73	—	1	8.41	30	23.70	33.71	5.09	22.77	509	0.152
50	23.65	33.67	4.98	0.16	—	3	8.42	50	23.65	33.67	4.98	22.76	510	0.254
75	21.91	33.96	4.41	0.21	—	5	8.43	57	21.91	33.96	4.41	23.47	443	0.374
100	19.00	34.10	3.96	0.25	—	10	8.39	100	19.00	34.10	3.96	24.35	359	0.474
125	17.68	34.27	4.08	0.29	—	16	8.31	125	17.68	34.27	3.74	24.81	315	0.559
145	16.88	34.27	3.74	0.36	—	15	8.30							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	13	14. 15	157	03	20	NE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	16	1009. 8	22. 5	17. 9	AlCu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\,dt/cm^3/g$	ΔD dyn. m
0	24. 60	33. 86	4. 98	0. 13	—	1	8. 01	0	24. 60	33. 86	4. 98	22. 62	523	0. 000
10	24. 37	33. 84	4. 75	0. 09	—	1	8. 19	10	24. 37	33. 84	4. 75	22. 68	518	0. 052
20	24. 30	33. 84	4. 75	0. 19	—	7	8. 32	20	24. 30	33. 84	4. 75	22. 70	516	0. 104
30	24. 37	33. 85	4. 75	0. 05	—	2	7. 92	30	24. 37	33. 85	4. 75	22. 69	517	0. 156
50	24. 45	33. 90	4. 87	0. 03	—	2	7. 94	50	24. 45	33. 90	4. 87	22. 70	516	0. 259
75	23. 44	33. 77	4. 87	0. 09	—	3	8. 12	75	23. 44	33. 77	4. 87	22. 90	497	0. 387
100	18. 20	33. 18	4. 87	0. 07	—	12	8. 28	100	18. 20	33. 95	4. 87	24. 44	350	0. 493
125	18. 65	34. 18	3. 62	0. 08	—	11	8. 34	125	15. 14	34. 18	3. 62	25. 32	266	0. 571
150	14. 28	34. 21	3. 40	0. 09	—	19	8. 34	150	14. 28	34. 21	3. 40	25. 53	246	0. 636

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	13	16.40	131	03	23	NE 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	3	1009.9	24.8	19.6		5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.40	33.83	4.64	0.11	—	2	8.14	0	24.40	33.83	4.64	22.66	520	0.000
10	24.24	33.76	4.87	0.24	—	1	8.32	10	24.24	33.76	4.87	22.65	521	0.052
20	24.26	33.77	4.87	0.21	—	3	8.34	20	24.26	33.77	4.87	22.66	520	0.104
30	24.24	33.77	4.87	0.16	—	3	8.34	30	24.24	33.77	4.87	22.66	520	0.156
50	24.23	33.77	4.87	0.23	—	1	8.32	50	22.23	33.77	4.87	22.66	520	0.261
75	22.50	34.19	3.85	0.45	—	—	8.31	75	22.50	34.19	3.85	23.49	441	0.381
100	19.43	34.14	3.62	0.53	—	9	8.32	100	19.43	34.14	3.62	24.27	366	0.483
125	17.01	34.21	3.62	0.76	—	11	8.28	125	17.01	34.21	3.62	24.93	303	0.567

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	13	1930	102	02	22	NE 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	06	1009.5	24.7	190		3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.20	33.87	4.41	0.09	—	11	7.94	0	24.20	33.87	4.41	22.75	511	0.000
10	23.99	33.81	4.87	0.17	—	3	8.10	10	23.99	33.81	4.87	22.76	510	0.051
20	23.97	33.79	4.87	0.13	—	4	8.22	20	23.97	33,80	4.87	22.76	510	0.102
30	23.94	33.81	4.87	0.21	—	5	8.20	30	23.94	33.81	4.87	22.78	508	0.153
50	23.93	33.78	4.87	0.19	—	3	8.29	50	23.93	33.78	4.87	22.76	510	0.255
75	17.63	32.95	4.41	0.51	—	16	8.16	75	17.63	33.89	4.41	24.53	341	0.362
100	16.76	34.16	3.40	0.56	—	18	8.10	100	16.76	34.16	3.40	24.94	302	0.444

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	13	2310	101	02	20	NNE2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		D.y	Wet	Type	Amount	
NNE	08	1010.2	22.9	18.6		3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	23.10	32.75	4.98	0.05	—	3	7.75	0	23.10	32.75	4.98	22.22	561	0.000
10	22.98	32.83	4.98	0.01	—	3	8.03	10	22.08	32.83	4.98	22.32	552	0.056
20	22.98	33.00	4.87	0.01	—	1	8.30	20	22.98	33.00	4.87	22.45	540	0.110
30	23.01	33.07	4.87	—	—	4	8.35	30	23.01	33.07	4.87	22.49	536	0.164
50	17.83	32.73	3.74	0.36	—	11	8.28	50	21.15	33.47	3.74	23.31	458	0.264
75	18.10	34.02	3.62	0.51	—	16	8.23	75	18.10	34.02	3.62	24.52	342	0.365
100	16.66	34.20	3.28	0.29	—	19	8.19	100	16.66	34.20	3.28	25.00	297	0.445

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	14	0210	101			NNE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	06	1010.2	21.6	17.6	AlCu	5	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	23.30	33.11	4.53	0.01	—	4	8.13	0	23.30	33.11	4.53	22.44	541	0.000
10	23.20	33.11	5.32	0.03	—	5	8.25	10	23.20	33.11	5.32	22.46	538	0.054
20	23.10	33.21	5.09	0.04	—	3	8.33	20	23.10	33.21	5.09	22.57	529	0.110
30	23.21	33.33	4.75	0.43	—	3	8.26	30	23.21	33.33	4.75	22.63	523	0.160
50	21.78	34.17	4.08	0.08	—	5	8.21	50	21.78	34.17	4.08	23.67	423	0.255
75	18.48	33.93	3.28	0.48	—	19	8.18	75	18.48	—	3.28	—	—	—
100	16.62	34.18	3.17	0.53	—	28	8.19	100	16.62	34.19	3.17	25.00	297	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	14	0410	116			NNE 3	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	12	1008.7	21.4	18.0	AlSt	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	23.10	32.13	4.87	0.03	—	7	8.14	0	23.10	32.13	4.87	21.75	606	0.000
10	22.85	32.10	5.09	0.05	—	6	8.23	10	22.85	32.10	5.09	21.80	602	0.060
20	22.95	32.25	5.55	0.21	—	7	8.23	20	22.95	32.25	5.55	21.89	594	0.120
30	22.96	32.39	4.98	0.09	—	3	7.93	30	22.96	32.39	4.98	21.99	584	0.179
50	19.18	32.75	4.30	0.33	—	9	8.07	50	19.18	32.75	4.30	23.28	461	0.284
75	16.00	32.90	3.62	0.51	—	14	8.20	75	16.00	32.90	3.62	24.15	378	0.389
100	15.97	34.05	3.06	0.51	—	19	8.10	100	15.97	34.05	3.06	25.04	293	0.474
125	16.47	34.09	3.74	0.59	—		—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	14	0700	109			NNE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	20	1008.3	20.2	17.4	AlSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.50	32.11	4.98	0.13	—	17	8.32	0	22.50	32.11	4.98	21.91	591	0.000
10	22.53	32.11	5.09	0.07	—	5	8.33	10	22.53	32.11	5.09	21.90	592	0.059
20	22.63	32.15	4.87	0.05	—	4	8.23	20	22.63	32.15	4.87	21.90	593	0.119
30	20.15	32.53	4.41	0.05	—	25	8.26	30	20.15	32.53	4.41	22.86	501	0.173
50	14.63	32.43	4.19	0.63	—	21	8.19	50	14.63	32.43	4.19	24.09	383	0.262
75	15.05	33.44	3.74	0.80	—	20	8.14	75	15.05	33.44	3.74	24.78	318	0.350
100	15.93	33.87	3.40	0.86	—	24	8.10	100	15.93	33.87	3.40	24.91	305	0.428

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	24	21. 25	92	04	11	NE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	14	1010. 8	23. 3	20. 7	Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4 P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt$ cm/g³	△D dyn. m
0	22. 10	32. 09	5. 32	0. 11	—	9	8. 15	0	22. 10	32. 09	5. 32	22. 00	582	0. 000
10	20. 84	32. 04	5. 21	0. 19	—	7	8. 35	10	20. 84	32. 04	5. 21	22. 31	553	0. 057
20	21. 02	32. 39	5. 09	0. 16	—	5	8. 39	20	21. 02	32. 39	5. 09	22. 53	553	0. 111
30	21. 61	32. 80	4. 98	0. 13	—	6	8. 40	30	21. 61	32. 80	4. 98	22. 68	518	0. 164
50	16. 58	32. 55	4. 41	0. 09	—	14	8. 32	50	16. 58	32. 55	4. 41	23. 76	415	0. 257
75	16. 04	33. 78	3. 40	0. 78	—	26	8. 26	75	16. 04	33. 78	3. 40	24. 82	314	0. 349
90	16. 64	34. 10	3. 28	0. 96	—	20	8. 24							

315선 해 양 관 측 성 적

Oceanographic Data, Line 315

4월(March) 조사선(Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
20	08	0400	45			N 1	

Wind		Baro.	Air TemP.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	7	1017.2	1011.0	10.7	AISt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/l	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn.m
0	9.80	32.43	6.63	0.21	—	—	8.23	0	9.80	32.43	6.63	25.00	296	0.000
10	9.02	32.27	6.49	0.13	—	—	8.34	10	9.02	32.27	6.49	25.00	296	0.030
20	9.29	32.29	6.46	0.61	—	—	8.32	20	9.26	32.29	6.46	24.98	299	0.059
30	9.38	32.29	6.35	0.85	—	—	8.32	30	9.38	32.29	6.35	24.96	301	0.089
42	9.33	32.30	6.43	—	—	—	—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
18	08	0825	65			N 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	16	1014.2	12.2	12.0	AISt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn.m
0	11.20	32.63	6.43	0.12	—	—	8.34	0	11.20	32.63	6.43	24.92	304	0.000
10	10.57	33.00	6.55	0.25	—	—	8.37	10	10.57	33.00	6.55	25.31	267	0.039
20	10.44	33.17	6.44	0.37	—	—	8.32	70	10.44	33.17	6.44	25.47	252	0.055
30	10.48	33.17	6.23	0.45	—	—	8.35	30	10.48	33.17	6.53	25.47	252	0.080
50	10.51	33.22	6.35	0.39	—	—	8.38	50	10.51	33.22	6.35	25.49	250	0.130
63	10.55	33.23	6.35	0.40	—	—	—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
16	8	1250	93	03	05	N 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Day	Wet	Type	Amount	
N	14	1012.7	11.0	10.8	5	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	14.90	33.53	5.92	0.05	—	—	8.28	0	14.90	33.53	5.92	24.88	307	0.000
10	13.17	34.20	6.04	0.08	—	—	8.35	10	13.17	34.20	6.04	28.76	224	0.027
20	13.29	34.25	6.02	0.19	—	—	8.37	20	13.29	34.25	6.02	25.77	223	0.049
30	13.19	34.25	6.01	0.09	—	—	8.37	30	13.19	34.25	6.01	25.80	221	0.071
50	13.10	34.26	6.32	0.12	—	—	8.37	50	13.10	34.26	6.32	25.82	220	0.116
75	13.15	34.26	5.86	0.05	—	—	8.17	75	13.15	34.26	5.86	25.81	221	0.171
90	13.31	34.25	6.21	0.12	—	—	—							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
14	8	1705	108	02	10	N 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	21	1012.1	16.1	16.0	Al5t	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	16.90	34.69	5.90	0.12	—	—	8.43	0	16.90	34.69	5.90	25.32	266	.0000
10	16.66	34.81	5.72	0.03	—	—	8.43	10	16.66	34.81	5.72	25.47	252	0.026
20	16.71	34.84	5.71	0.05	—	—	8.45	20	16.71	34.84	5.71	25.48	251	0.051
30	16.70	34.86	5.69	0.12	—	—	8.45	30	16.70	34.86	5.69	25.49	250	0.076
50	15.63	34.79	5.31	0.04	—	—	8.43	50	15.63	34.79	5.31	25.69	232	0.125
75	15.69	34.80	5.34	0.35	—	—	8.40	75	15.69	34.80	5.34	25.68	233	0.183
100	15.62	34.80	5.09	0.09	—	—	8.40	100	15.62	34.80	5.08	25.70	233	0.241

St No.	Date	Time	Depth	Water Color.	Water Trans.	Wave	Swell
12	8	2120	132	02	10	NE 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	21	1011.4	15.9	15.4	AISt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	17.40	34.84	5.66	0.01	—	—	8.39	0	17.40	34.84	5.66	25.32	266	0.000
10	17.76	34.87	5.45	0.08	—	—	8.43	10	17.76	34.87	5.45	25.25	273	0.027
20	17.76	34.87	5.55	0.15	—	—	8.41	20	17.76	34.87	5.55	25.55	273	0.054
30	17.74	34.87	5.29	0.03	—	—	8.44	30	17.74	34.87	5.29	25.25	273	0.082
50	16.75	34.78	5.29	0.03	—	—	8.41	50	16.75	34.78	5.29	25.42	258	0.135
75	16.41	34.69	5.41	0.19	—	—	8.43	75	16.41	34.69	5.41	25.44	257	0.199
100	15.11	34.65	5.41	0.03	—	—	8.42	100	15.11	34.65	5.41	25.70	233	0.261
125	15.33	34.89	4.15	0.40	—	—	8.37	125	15.14	34.84	4.55	25.83	221	0.318
130	15.31	34.90	4.28	0.36	—	—	—							

316선 해 양 관 측 성 적

Oceanographic Data, Line 316

10월(October) 조사선(Suro)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swel
20	25	0620	45			NE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	16	1012.6	21.5	19.6	AlCu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.10	32.79	4.98	0.21	—	5	8.24	0	22.10	32.79	4.98	22.53	531	0.000
10	22.28	32.69	5.09	0.09	—	6	8.34	10	22.28	32.69	5.09	22.41	544	0.054
20	22.35	32.68	4.87	0.12	—	7	8.36	20	22.35	32.68	4.87	22.38	547	0.108
30	22.35	32.70	4.87	0.12	—	5	8.47	30	22.35	32.70	4.87	22.40	545	0.163
50	22.33	32.71	4.98	0.19	—	—	8.34							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
18	25	1055	66			NE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	10	1012.3	21.3	18.9	AlCu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.10	32.51	5.09	0.29	—	3	8.46	0	22.10	32.51	5.09	22.32	552	0.000
10	21.95	32.46	4.98	0.16	—	5	8.37	10	21.95	32.46	4.98	22.33	551	0.055
20	22.03	33.46	4.87	0.19	—	11	8.51	20	22.03	32.46	4.87	22.31	554	0.111
30	22.59	32.77	4.64	0.24	—	6	8.45	30	22.59	32.77	4.64	22.39	546	0.166
50	22.89	33.42	4.53	0.61	—	16	8.38	50	22.89	33.42	4.53	22.79	508	0.271
65	23.58	33.34	2.94	0.40	—	—	8.17							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
16	25	1440	90			NE 5	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE0	16	1013.4	21.6	19.5	Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^5}$ cm^3/g	△D dyn. m
0	21.90	32.64	5.09	0.11	—	4	8.04	0	21.90	32.64	5.09	22.48	537	0.000
10	22.05	32.63	4.98	0.05	—	4	8.14	10	22.05	32.63	4.98	22.42	542	0.054
20	22.16	32.69	5.09	0.05	—	3	8.28	20	22.16	32.69	5.09	22.45	541	0.008
30	23.08	33.49	4.87	0.08	—	1	8.25	30	23.06	33.49	4.87	22.79	508	0.161
50	23.08	33.65	4.41	0.12	—	3	8.22	50	23.08	33.65	4.41	22.91	496	0.261
75	20.06	33.85	2.83	0.53	—	2	8.24	75	20.06	33.85	2.83	23.89	403	0.374
85	19.43	34.00	2.94	0.81	—	20	8.17							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
14	25	1820	102	03	3	NE 4	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	14	1013.3	22.4	20.0	Cu	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4P- μat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	22.20	33.80	4.87	0.09	—	2	8.09	0	22.20	33.80	4.87	23.27	461	0.000
10	23.03	33.81	4.64	0.09	—	3	8.23	10	23.03	33.81	4.64	23.04	483	0.047
20	23.18	33.81	4.98	0.11	—	3	8.23	20	23.18	33.81	4.98	23.00	488	0.096
30	23.18	33.80	4.64	0.04	—	2	8.28	30	23.18	33.80	4.64	22.99	488	0.145
50	23.12	33.81	2.94	0.05	—	—	8.33	50	23.12	33.81	2.94	23.02	486	0.242
75	20.00	33.97	4.75	0.51	—	19	8.15	75	20.00	33.97	2.29	24.00	392	0.353
100	18.24	34.21	3.28	0.52	—	23	8.18	100	18.24	34.21	3.28	24.63	332	0.444

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
12	25	2355	124			N 6	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	26	1012.7	21.8	20.2	Cu	5	CB

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	23.70	33.87	4.64	0.05	—	2	8.22	0	23.70	33.87	4.64	22.90	479	0.000
10	23.58	33.82	5.43	0.15	—	3	8.22	10	23.58	33.82	5.43	22.89	498	0.050
20	23.58	33.82	4.87	0.08	—	1	8.17	20	23.58	33.82	4.87	22.90	498	0.100
30	23.62	33.82	4.87	0.04	—	2	8.20	30	23.62	33.82	4.87	22.88	499	0.149
50	23.61	33.83	4.87	0.09	—	4	8.15	50	23.61	33.83	4.87	22.89	498	0.249
75	22.31	34.14	4.08	0.21	—	3	8.23	35	22.31	34.14	4.08	23.50	440	0.367
100	19.83	34.34	3.96	0.32	—	11	8.33	100	19.83	34.34	3.96	24.32	361	0.468
117	16.86	34.35	3.85	0.51	—	—	8.37							

서 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS WESTERN WATERS

1966

306선 해 양 관 측 성 적

Oceanographic Data, Line 306

3월 (March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	17	1230	19	8	3	NE 1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
	4	21.0	5.8		Ci	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	3.10	31.76	6.48	0.65	—	4	8.22	0	3.10	31.76	6.48	25.32	266	0.000
10	6.84	31.73	6.48	—	—	4	8.21	10	6.84	31.73	6.48			
19	3.27	31.71	6.54	1.04	—	4	8.01							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	17	1500	33	7	3	NE 1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1015.0	5.3		Ci	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	3.00	31.71	6.42	0.48	—	4	8.01	0	3.00	31.71	6.42	25.29	269	0.000
10	3.12	31.71	6.42	0.68	—	6	8.00	10	3.12	31.71	6.42	25.28	270	0.027
20	3.08	31.70	6.69	0.80	—	6	8.00	20	3.08	31.70	6.69	25.27	270	0.054
33	2.98	31.70	6.44	0.71	—	6	8.00	30	3.00	31.69	6.56	25.28	270	0.081

St No	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	17	1625	55	4	3	NE 1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	4	1016.0	5.4		AlCu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	3.40	31.75	6.35	0.45	—	3	8.02	0	3.40	31.75	6.35	25.28	269	0.000
10	3.66	31.75	6.39	0.43	—	4	—	10	3.66	31.75	6.39	25.26	271	0.027
20	3.35	31.75	6.52	0.37	—	5	8.00	20	3.35	31.75	6.52	25.29	269	0.054
30	3.99	31.76	6.41	0.33	—	4	8.12	30	3.99	31.76	6.51	25.24	274	0.081
55	3.76	32.00	6.39	0.27	—	4	8.09	50	4.01	31.92	6.36	25.37	262	0.135

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	17	1755	60	4	5	NE 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1016.0	4.9		AlCu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	3.60	31.95	6.42	0.65	—	5	8.17	0	3.60	31.95	6.42	25.42	256	0.000
10	4.21	31.99	6.50	0.66	—	5	8.08	10	4.21	31.99	6.50	25.40	258	0.026
20	3.89	32.06	6.56	0.64	—	4	8.08	20	3.89	32.06	6.56	25.48	250	0.051
30	4.70	32.29	6.29	0.85	—	3	8.13	30	4.70	32.29	6.29	25.59	241	0.076
50	4.71	32.23	6.19	0.52	—	3	8.07	50	4.71	32.23	6.19	25.54	246	0.125
60	4.71	32.33	6.19	—	—	3	8.12							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	17	1915	66			N 2	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	2	1016.0	4.7		AlCu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	5.00	32.13	6.46	0.45	—	4	8.10	0	5.00	32.13	6.46	25.43	256	0.000
10	4.41	32.13	6.60	0.45	—	4	8.20	10	4.41	32.13	6.60	25.49	250	0.025
20	4.43	32.20	6.62	0.59	—	4	8.12	20	4.43	32.20	6.62	25.54	245	0.050
30	4.51	32.23	6.31	0.32	—	4	8.12	30	4.51	32.23	6.31	25.56	243	0.075
50	4.62	32.26	6.33	0.39	—	5	8.20	50	4.62	32.26	6.33	25.57	242	0.123
66	4.63	32.27	6.25	0.91	—	5	8.20	75						

8월(August) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	05	12.25	25	7	2	N 3	N 2

Wind		Baro.	Air TemP.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	2	1005.0	25.4		Ci St	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.20	28.08	5.30	0.47	0.19	53	7.80	0	24.20	28.80	5.30	18.39	929	0.000
10	23.72	29.18	5.34	0.49	0.01	55	7.67	10	23.72	29.18	5.34	19.35	837	0.088
25	21.66	30.82	4.88	0.77	0.04	55	7.66	20	22.52	30.27	5.10	20.52	725	0.167

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	5	10.45	44	7	3	N 3	N 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	2	1004.0	26.5		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	23.80	29.31	5.28	0.43	0.08	43	7.70	0	23.80	29.31	5.28	19.43	829	0.000
10	22.70	30.26	5.14	0.48	0.01	47	7.87	10	22.70	30.26	5.14	20.46	731	0.078
20	21.84	31.06	4.82	0.49	0.01	53	7.82	20	21.84	31.06	4.82	21.30	650	0.147
30	21.40	31.04	5.02	0.40	0.01	56	7.80	30	21.40	31.04	5.02	21.40	641	0.212
40	20.29	31.49	4.80	0.53	0.08	50	7.80							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
06	5	09.45	44	8	4	N 4	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	3	1005.0	26.0		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	23.50	28.89	5.26	0.40	0.01	42	7.88	0	23.50	28.89	5.26	19.20	851	0.000
10	22.88	30.39	5.22	0.47	0.01	49	7.86	10	22.88	30.39	5.22	20.50	726	0.079
20	22.93	30.73	5.14	0.57	0.01	48	7.82	20	22.93	30.73	5.14	20.75	703	0.150
30	22.87	31.57	5.16	0.63	0.01	50	7.70	30	22.87	31.57	5.16	21.40	641	0.210
40	20.25	32.02	4.98	0.72	0.04	49	7.70							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	5	0825	55	5	7	N 3	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	3	1004.0	25.4		S:Cu	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-S μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\,dt/cm^3/g$	ΔD dyn. m
0	25.00	31.23	5.28	0.29	0.01	44	7.80	0	25.00	31.23	5.28	20.62	724	0.000
10	25.11	31.46	5.20	0.27	0.01	35	7.83	10	25.11	31.46	5.20	20.66	711	0.072
20	22.02	31.64	5.26	0.43	0.08	51	7.80	20	22.02	31.64	5.26	21.69	613	0.138
30	20.90	31.01	5.24	0.40	0.15	61	7.80	30	20.90	31.01	5.24	21.51	630	0.200
50	17.11	32.15	5.02	0.45	0.04	58	7.70	50	17.11	32.15	5.02	23.33	456	0.309

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	5	0650	63	6	5	N4	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	3	1004.0	25.5		NiSt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\,dt/cm^3/g$	ΔD dyn. m
0	27.30	32.12	5.08	0.48	0.02	44	7.90	0	27.30	32.12	5.08	20.48	728	0.000
10	25.28	32.19	4.92	0.39	0.01	48	7.90	10	25.28	32.19	4.92	21.16	663	0.070
20	22.10	32.36	5.06	0.31	0.01	40	7.88	20	22.10	32.36	5.06	22.21	563	0.131
30	21.60	32.49	5.04	0.36	0.01	35	7.75	30	21.60	32.49	5.04	22.45	540	0.186
50	17.36	32.61	5.18	0.48	0.01	48	7.80	50	17.36	32.61	5.18	23.62	428	0.283
60	13.08	32.45	5.12	0.51	0.01	53	7.85							

307선 해 양 관 측 성 적

Oceanographic Data, Line 307

3월(March) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Cclor	Water Trans.	Wave	Swell
04	18	0555	35			NE 4	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		D.y	Wet	Type	Amount	
NE	6	1009.0	4.5		AlSt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	4.50	31.73	6.54	0.17	—	7	8.23	0	4.50	31.73	6.54	25.16	281	0.000
10	2.50	31.83	6.58	0.25	—	6	8.18	10	2.50	31.83	6.58	25.42	256	0.027
20	3.28	31.87	6.33	0.13	—	6	8.22	20	3.28	31.87	6.33	25.39	259	0.053
35	3.21	31.88	6.31	1.00	—	7	8.20	30	3.39	31.88	6.27	25.39	259	0.079

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	18	2400	60			NE 3	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	3	1010.0	6.5		AlSt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	4.80	31.96	6.46	1.56	—	5	8.22	0	4.80	31.96	6.46	25.31	266	0.000
10	4.10	31.97	6.52	0.16	—	5	8.23	10	4.10	31.97	6.52	25.39	259	0.026
20	3.69	32.04	6.10	0.35	—	5	8.20	20	3.69	32.04	6.10	25.49	250	0.052
30	3.58	32.06	6.25	0.12	—	5	8.30	30	3.58	32.06	6.25	25.51	247	0.077
50	3.57	32.09	6.27	0.67	—	6	8.32	50	3.57	32.09	6.27	25.54	245	0.126
60	3.59	32.09	6.17	0.09	—	6	8.27							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	18	0220	51			NE 5	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	5	1012.0	5.2		Al-St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	4.50	32.11	6.56	0.41	—	4	8.20	0	4.50	32.11	6.56	25.46	252	0.000
10	4.91	32.16	6.60	0.89	—	4	8.28	10	4.91	32.16	6.60	21.46	253	0.025
20	4.01	32.09	6.50	0.19	—	4	8.12	20	4.01	32.09	6.50	25.50	249	0.050
30	5.62	32.09	6.48	0.12	—	6	8.22	30	5.62	32.09	6.48	25.32	266	0.076
51	3.95	32.11	6.48	0.15	—	6	8.28	50	4.18	32.10	6.48	25.49	249	0.128

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	17	2325	55			NE 4	NE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	5	1015.0	5.1		AlCu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	4.80	32.08	6.46	0.53	—	4	8.11	0	4.80	32.08	6.46	25.41	257	0.000
10	4.28	32.08	6.55	0.27	—	4	8.15	10	4.28	32.08	6.55	25.46	252	0.026
20	4.26	32.13	6.58	0.50	—	5	8.23	20	4.26	32.13	6.58	25.50	248	0.051
30	4.22	32.14	6.54	0.16	—	5	8.20	30	4.22	32.14	6.54	25.52	247	0.078
49	4.38	32.23	6.23	0.41	—	4	8.19	50						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	17	2200	68			N 2	

Wind		aro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	4	1010.0	5.7		AlCu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	5.20	32.46	6.25	0.47	—	5	8.20	0	5.20	32.46	6.25	25.66	233	0.000
10	5.31	32.52	6.29	0.24	—	5	8.13	10	5.31	32.52	6.29	25.70	230	0.023
20	5.81	32.49	6.23	0.35	—	4	8.12	20	5.81	32.49	6.23	25.62	238	0.047
30	5.30	32.48	6.19	0.25	—	4	8.17	30	5.30	32.48	6.19	25.67	233	0.070
50	5.29	32.50	6.13	0.23	—	4	8.15	50	5.29	32.50	6.13	25.69	231	0.117
68	5.39	32.52	6.13	0.51	—	5	8.26	75						

8월(August) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	4	2140	32			S 2	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1003.0	27.4		Ci	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	25.80	32.06	5.36	0.49	0.00	58	7.80	0	25.80	32.06	5.36	20.90	688	0.000
10	23.08	31.99	5.24	0.56	0.01	48	7.80	10	23.08	31.99	5.24	21.66	616	0.065
20	21.68	31.84	5.30	0.53	0.01	47	7.80	20	21.68	31.84	5.30	21.93	590	0.126
30	22.16	31.82	5.18	0.65	0.04	54	7.80	30	22.16	31.82	5.18	21.79	603	0.185

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	4	2300	48			S 3	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	1004.0	27.9		Ci	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	26.90	32.30	4.96	0.32	0.01	71	7.86	0	26.90	32.30	4.96	20.74	703	0.000
10	23.71	32.30	5.24	0.33	0.01	64	7.86	10	23.71	32.30	5.24	21.71	611	0.066
20	22.65	32.23	5.22	0.43	0.01	59	7.88	20	22.65	32.23	5.22	21.96	587	0.126
30	20.87	32.11	4.92	0.47	0.01	47	7.90	30	20.87	32.11	4.92	22.36	549	0.183
45	17.94	32.17	4.84	0.44	0.08	53	7.95	50						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	5	0040	54			S 3	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1004.0	28.6		Ci	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	28.00	32.21	4.62	0.24	0.17	77	7.70	0	23.00	32.21	4.62	20.32	743	0.000
10	25.88	32.35	4.86	0.27	0.14	55	7.70	10	25.88	32.35	4.86	21.10	669	0.071
20	22.31	32.43	5.18	0.27	0.08	58	7.70	20	22.31	32.43	5.18	22.21	564	0.132
30	21.26	32.54	5.06	0.35	0.01	56	7.70	30	21.26	32.54	5.06	22.58	528	0.187
50	16.09	32.64	5.02	0.40	0.06	63	7.68	50	16.09	32.64	5.02	23.94	398	0.280

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	5	0200	52			S 3	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1004.0	29.0		NiSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	28.40	31.65	5.02	0.56	0.04	40	7.80	0	28.40	31.65	5.02	19.77	796	0.000
10	27.67	31.74	4.98	0.35	0.01	55	7.80	10	27.67	31.74	4.98	20.08	767	0.078
20	25.07	32.42	4.98	0.60	0.01	49	7.80	20	25.07	32.42	4.98	21.40	641	0.149
30	19.11	32.72	5.00	0.29	0.04	51	7.80	30	19.11	32.72	5.00	23.28	461	0.204
50	12.54	32.61	5.02	0.32	0.04	47	7.80	50	12.54	32.61	5.02	24.65	330	0.283

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	5	0450	64			S 3	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1003.0	28.5		NiSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	29.00	31.95	5.10	0.43	0.01	28	7.82	0	29.00	31.95	5.10	19.80	794	0.000
10	27.84	32.03	5.06	0.48	0.01	22	7.80	10	27.84	32.03	5.06	20.24	752	0.077
20	22.96	32.48	5.20	0.77	0.01	35	7.70	20	22.96	32.48	5.20	22.06	578	0.144
30	19.00	32.78	5.18	1.14	0.01	38	7.70	30	19.00	32.78	5.18	23.35	454	0.195
50	14.76	32.64	5.10	0.47	0.08	34	7.69	50	14.76	32.64	5.10	24.23	370	0.278
60	12.07	32.59	5.16	0.45	0.07	38	7.66	75						

308선 해 양 관 측 성 적

Oceanographic Data, Line 308

3월(March) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	20	1330	21	6	1	NE 4	NW 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	4	1022.0	3.0		Ci	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	4.00	31.89	6.23	1.12	—	8	8.20	0	4.00	31.89	6.23	25.34	264	0.000
10	3.07	32.01	6.35	1.45	—	8	8.24	10	3.07	32.01	6.35	25.52	247	0.026
21	4.00	31.84	6.12	8.32	—		8.32	20	3.83	31.86	6.16	25.34	264	0.051

St. No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	20	1515	31	6	3	NW3	NW2

Wind		Baro.	Air Temp.		Cloud		Weather
Diretion	Force		Dry	Wet	Type	Amount	
NW	4	1021.0	3.4		Ci	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	3.90	31.98	6.31	—	—	8	8.20	0	3.90	31.98	6.31	25.42	256	0.000
10	3.88	32.07	6.35	0.48	—	8	8.28	10	3.88	32.07	6.35	25.49	249	0.025
20	3.76	32.05	6.25	0.99	—	8	8.31	20	3.76	32.05	6.25	26.49	250	0.050
31	3.73	32.04	6.23	0.76	—	5	8.28	30	3.72	32.04	6.23	25.48	250	0.075

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	21	1030	42	5	5	SE 3	SE 5

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	5	1020.0	4.5		Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	4.50	32.27	6.52	0.35	—	6	8.24	0	4.50	32.27	6.52	25.59	240	0.000
10	4.58	32.27	6.27	0.17	—	5	8.28	10	4.58	32.27	6.27	25.58	241	0.024
20	4.51	32.27	6.23	0.08	—	4	8.30	20	4.51	32.27	6.23	25.59	240	0.048
42	4.51	32.27	6.23	0.51	—	—	8.29	30	4.48	32.27	6.21	25.59	240	0.072

4월(April) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	21	1200	53	8	5	SE 4	SE 3

Wind		Baro.	Air Temp.		Cloud		Wecther
Direction	Force		Dry	Wet	Type	Amount	
SE	5	1018.0	5.3		Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	4.80	32.28	6.44	0.51	—	5	8.30	0	4.80	32.28	6.44	25.57	242	0.000
10	4.80	32.37	6.40	0.27	—	5	8.31	10	4.80	32.37	6.40	25.64	236	0.024
20	4.80	32.37	6.38	1.15	—	5	8.29	20	4.80	32.37	6.38	25.64	236	0.048
30	4.81	32.37	6.26	1.55	—	5	8.33	30	4.81	32.37	6.26	25.64	236	0.071
43	4.81	32.39	6.25	0.48	—	5	8.32							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	21	1500	54	6	3	SE 4	SE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	5	1015.0	6.5		Ci	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	5.30	32.39	6.21	0.11	—	4	8.37	0	5.30	32.39	6.21	25.60	239	0.000
10	5.32	32.48	6.15	0.04	—	5	8.40	10	5.32	32.48	6.15	25.67	233	0.024
20	5.26	32.48	5.94	0.04	—	4	8.27	20	5.26	32.48	5.94	25.67	232	0.047
30	5.19	32.49	6.09	0.19	—	4	8.21	30	5.19	32.49	6.09	25.69	231	0.070
49	5.18	32.49	6.15	0.16	—	5	8.34							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	21	1615	72	8	7	SE 3	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	5	1014.0	6.6		CiSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	5.90	32.49	6.13	0.23	—	5	8.31	0	5.90	32.49	6.13	25.61	238	0.000
10	5.88	32.29	6.13	0.21	—	5	8.31	10	5.88	32.29	6.13	25.45	253	0.025
20	5.70	32.45	6.14	0.03	—	5	8.34	20	5.70	32.45	6.14	25.60	239	0.049
30	5.70	32.59	5.98	0.41	—	5	8.37	30	5.70	32.59	5.98	25.71	229	0.073
50	5.70	32.60	5.73	0.45	—	5	8.43	50	5.70	32.60	5.73	25.72	228	0.119
68	5.69	32.62	5.71	0.52	—	5	8.50							

StNo.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	21	1730	72	6	7	SE 3	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	4	1013.0	6.5		CiSt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	6.00	32.43	5.65	0.08	—	5	8.48	0	6.00	32.43	5.65	25.55	244	0.000
10	5.18	32.94	5.59	0.04	—	5	8.44	10	5.18	32.94	5.59	26.05	197	0.022
20	6.10	32.57	5.67	0.30	—	5	8.40	20	6.10	32.57	5.67	25.65	235	0.044
30	6.03	32.63	5.72	0.48	—	4	8.46	30	6.03	32.63	5.72	25.70	230	0.067
50	5.97	32.62	5.82	0.31	—	7	8.36	50	5.97	32.62	5.82	25.70	230	0.113
63	5.93	32.62	5.72	0.19	—	8	8.39							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	21	1900	83			SE 3	SE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SE	4	1011.0	6.4		CiSt	10	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	6.50	32.78	5.88	0.25	—	6	8.39	0	6.50	32.78	5.88	25.76	224	0.000
10	6.55	32.75	5.94	0.07	—	6	8.38	10	6.55	32.75	5.94	25.73	227	0.023
20	6.45	32.76	5.90	0.05	—	5	8.30	20	6.45	32.76	5.90	25.75	225	0.045
30	6.32	32.75	5.48	0.25	—	4	8.30	30	6.32	32.75	5.48	25.76	224	0.068
50	6.40	32.78	5.44	0.45	—	4	8.30	50	6.40	32.78	5.44	25.77	223	0.113
67	6.36	32.78	5.56	0.05	—	5	8.24							

8월(August) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	4	1645	15	7	3	WS 1	WS 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	3	1004.0	27.5		CiSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	25.60	31.23	5.00	0.73	0.01	57	7.84	0	25.60	31.23	5.00	20.34	742	0.000
15	24.84	31.33	4.86	0.40	0.13	60	7.80							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	04	1520	25	6	5	WS 1	WS

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	01	05.0	27.7		Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	27.50	30.55	5.02	0.60	0.01	68	7.73	0	27.50	30.55	5.02	19.24	848	0.000
10	25.77	30.85	5.12	0.60	0.00	62	7.80	10	25.77	30.85	5.12	20.00	774	0.081
20	23.31	31.68	4.78	0.50	0.01	76	7.80	20	23.31	31.68	4.78	21.36	645	0.152

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	4	1410	37	6	7	WS 1	WS 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	1	1005.0	28.0		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⊿D dyn. m
0	26.30	30.54	4.96	0.56	0.01	64	7.80	0	26.30	30.54	4.96	19.61	812	0.000
10	25.70	30.80	5.32	0.56	0.01	61	7.86	10	25.70	30.80	5.32	19.99	776	0.079
20	24.90	29.99	5.20	0.60	0.00	74	7.75	20	24.90	31.16	5.20	20.50	727	0.155
35	21.99	31.89	5.16	0.69	0.01	51	7.74	30	23.18	31.62	5.15	21.35	646	0.223

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	4	1135	42	3	9	WS 3	WS 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	3	07.0	28.4		Alst	8	C

CBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	⊿D dyn. m
0	28.00	33.31	4.72	0.56	0.01	37	7.80	0	28.00	33.31	4.72	21.15	664	0.000
10	26.83	32.39	4.84	0.57	0.01	53	7.80	10	26.83	32.39	4.84	20.83	695	0.068
20	21.13	32.47	4.96	0.64	0.01	53	7.80	20	21.13	32.47	4.96	22.56	530	0.129
30	17.63	32.78	5.02	0.67	0.10	69	7.70	30	17.63	32.78	5.02	23.68	422	0.177
40	16.22	32.79	4.92	0.73	0.17	83	7.68							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	4	1000	50	3	9	SW 1	SW 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1006.0	28.0			10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	d_t 10^{-5} cm^3/g	△D dyn. m
0	28.40	32.01	4.56	0.53	0.04	48	7.88	0	28.40	32.01	4.56	20.04	770	0.000
10	26.20	32.31	4.78	0.49	0.01	41	7.84	10	26.20	32.31	4.78	20.97	682	0.073
20	20.41	32.66	5.24	0.47	0.01	63	7.80	20	20.41	32.66	5.24	22.89	498	0.132
30	17.55	32.81	5.32	0.49	0.01	58	7.71	30	17.55	32.81	5.32	23.73	418	0.178
50	12.29	32.81	5.06	0.61	0.01	60	7.70	50	12.29	32.81	5.06	24.86	310	0.251

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	4	0825	56	3	5	SW 1	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1006.0	28.4		Cu	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	d_t 10^{-5} cm^3/g	△D dyn. n
0	28.20	31.56	4.92	0.33	0.01	40	7.97	0	28.20	31.56	4.92	19.77	796	0.000
10	26.91	31.58	4.86	0.06	0.10	35	7.86	10	26.91	31.58	4.86	20.20	756	0.078
20	24.61	32.38	5.08	0.36	0.10	37	7.86	20	24.61	32.38	5.08	21.50	631	0.147
30	17.20	32.74	5.16	0.40	0.10	50	7.86	30	17.20	32.74	5.16	23.76	415	0.199
50	10.47	32.76	5.20	0.51	0.01	65	7.80	50	10.47	32.76	5.20	25.15	282	0.269

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	4	0515	66			WN1	NW0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	1	1006.0	28.3		Alt-Cu	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	28.70	31.36	5.04	0.53	0.06	22	7.90	0	28.70	31.36	5.04	19.46	827	0.000
10	26.60	31.39	5.02	0.51	0.01	30	7.87	10	26.60	31.39	5.02	20.15	760	0.079
20	24.14	32.52	5.14	0.56	0.01	37	7.82	20	24.14	32.52	5.14	21.75	607	0.148
30	18.98	32.82	5.82	0.61	0.04	38	7.83	30	18.98	32.82	5.82	23.38	451	0.201
50	8.78	32.73	5.80	0.72	0.03	36	7.80	50	8.78	32.73	5.80	25.40	259	0.272
65	8.57	32.72	5.84	0.83	0.01	35	7.80							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	4	0330	84			WN 1	S0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	1	1006	28.4		Cu	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	28.70	32.13	4.60	0.35	0.17	69	7.90	0	28.70	32.13	4.60	20.03	771	0.000
10	26.69	31.13	4.88	0.39	0.08	64	7.93	10	26.69	31.13	4.88	19.93	781	0.078
20	24.60	32.45	5.26	0.44	0.01	51	7.80	20	24.60	32.45	5.26	21.56	625	0.148
30	26.79	32.66	5.78	0.63	0.04	32	7.80	30	19.06	32.66	5.78	23.24	465	0.203
50	7.99	32.71	5.70	0.81	0.08	34	7.82	50	7.99	32.71	5.70	25.50	249	0.274
80	6.90	32.69	5.68	0.64	0.01	41	7.84	75	6.00	32.70	5.67	25.76	224	0.334

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	4	0150	82			WS 1	S0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1006	29.00		Al-St	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. n
0	28.40	31.03	4.64	0.35	0.04	55	7.88	0	28.40	31.03	4.64	19.31	841	0.000
10	27.58	31.01	4.76	0.40	0.06	53	7.82	10	27.58	31.01	4.76	19.56	817	0.083
20	25.08	31.79	4.98	0.43	0.08	53	7.85	20	25.08	31.79	4.98	20.92	687	0.158
30	16.41	32.55	5.36	0.75	0.08	63	7.87	30	16.41	32.55	5.36	23.79	412	0.213
50	7.59	32.72	5.90	0.59	0.04	66	7.80	50	7.59	32.72	5.90	25.57	242	0.279
80	7.25	32.72	5.72	0.56	0.13	58	7.78	75	6.23	32.74	5.83	25.76	224	0.337

309선 해 양 관 측 성 적

Oceanographic Data, Line 313

3月(March) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	22	1000	25	6	3	NNE 3	NNE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	4	1002.0	4.8		Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	5.40	31.78	6.66	0.43	—	5	8.48	0	5.40	31.78	6.66	25.11	286	0.000
10	5.02	31.90	6.56	0.43	—	6	8.46	10	5.02	31.90	6.56	25.24	273	0.028
25	4.91	31.93	6.66	0.12	—	6	8.3820	4.88	31.94	6.66	25.29	269	0.055	

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	22	0800	47			NE 4	NE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
5	5	1000.0	5.1		Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	5.20	32.26	6.56	0.28	—	5	8.46	0	5.20	32.26	6.56	25.51	248	0.000
10	5.13	32.24	6.58	0.28	—	5	8.50	10	5.13	32.24	6.58	25.50	249	0.025
20	5.09	32.27	6.54	0.37	—	5	8.45	20	5.09	32.27	6.54	25.53	246	0.050
30	5.15	32.27	6.62	0.31	—	5	8.44	30	5.15	32.27	6.62	25.52	247	0.074
44	5.12	32.27	6.75	0.31	—	5	8.46							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	22	0640	55			ENE 5	ENE 3

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	6	1008.0	5.5		Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	5.50	32.48	6.23	0.75	—	5	8.40	0	5.50	32.48	6.23	25.65	235	0.000
10	5.50	32.46	6.23	0.59	—	5	8.40	10	5.50	32.46	6.23	25.63	236	0.024
20	5.50	32.46	6.19	0.55	—	5	8.48	20	5.50	32.46	6.19	25.63	236	0.047
30	5.49	32.47	6.17	0.59	—	6	8.46	30	5.49	32.47	6.17	25.64	236	0.071
50	5.49	32.47	6.13	0.52	—	6	8.46	50	5.49	32.47	6.13	25.64	236	0.116

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	22	0430	63			ENE 6	ENE 3

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	6	1009.0	5.5		AISt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	ΔD dyn. m
0	5.80	32.56	6.06	0.59	—	5	8.42	0	5.80	32.56	6.06	25.67	232	0.000
10	5.78	32.55	6.15	0.34	—	5	8.42	10	5.78	32.55	6.15	25.67	233	0.023
20	5.75	32.56	6.14	0.63	—	5	8.43	20	5.75	32.56	6.14	25.68	232	0.047
30	5.80	32.57	6.05	0.19	—	5	8.50	30	5.80	32.57	6.05	25.68	232	0.070
54	5.77	32.57	6.02	0.31	—	5	8.43	50	5.79	32.57	6.01	25.68	232	0.116

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	SWell
05	22	0300	70			ENE 6	ENE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amont	
ENE	3	1001.0	6.0		AlSt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt$ cm^3/g	△D dyn. m
0	6.00	32.59	6.02	0.28	—	5	8.38	0	6.00	32.59	6.02	25.67	232	0.000
10	6.37	32.59	6.02	0.38	—	5	8.38	10	6.37	32.59	6.02	25.63	237	0.023
20	5.96	32.59	6.04	0.21	—	4	8.41	20	5.96	32.59	6.04	25.68	232	0.047
30	5.93	32.58	6.00	0.24	—	4	8.45	30	5.93	32.58	6.00	25.67	232	0.070
50	5.97	32.60	6.02	0.36	—	5	8.43	50	5.97	32.60	6.02	25.68	232	0.117
65	5.98	32.58	6.04	0.40	—	5	8.44							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	22	0100	73			ENE	ENE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	6	1002.0	6.0		Al-St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}dt$ cm^3/g	△D dyn. m
0	5.10	32.61	6.12	0.15	—	5	8.48	0	5.10	32.61	6.12	25.79	221	0.000
10	6.09	32.61	6.12	0.16	—	5	8.42	10	6.09	32.61	6.12	25.68	232	0.023
20	6.09	32.61	6.10	0.56	—	5	6.44	20	6.09	32.61	6.10	25.68	232	0.046
30	6.07	32.62	6.20	0.63	—	5	8.50	30	6.07	32.62	6.21	25.69	231	0.069
50	5.97	32.63	6.19	0.22	—	6	8.48	50	5.97	32.63	6.19	25.71	229	0.115
61	6.00	32.62	6.12	0.04	—	6	8.44							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	22	0000	73			S 6	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	6	1007.0	6.1		AlSt	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dyn. m
0	6.20	32.62	6.02	0.29	—	5	8.42	0	6.20	32.62	6.02	25.67	232	0.000
10	6.22	32.63	6.06	0.08	—	5	8.40	10	6.22	32.63	6.06	25.68	232	0.023
20	6.31	32.65	6.12	0.05	—	5	8.48	20	6.31	32.65	6.12	25.68	232	0.046
30	6.20	32.58	6.19	—	—	5	8.40	30	6.20	32.58	6.19	25.64	236	0.070
50	6.20	32.59	5.96	0.28	—	5	8.40	50	6.20	32.59	5.96	25.65	235	0.117
73	6.20	32.66	5.94	0.09	—	6	8.40							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	21	2230	74			S 6	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	6	1007.0	6.9		Al-St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dyn. m
0	6.50	32.71	6.02	0.21	—	5	8.31	0	6.50	32.71	6.02	25.70	229	0.000
10	6.56	32.72	6.04	0.23	—	4	8.42	10	6.56	32.72	6.04	25.70	229	0.023
20	6.51	32.73	6.02	0.12	—	4	8.40	20	6.51	32.73	6.02	25.72	228	0.046
30	6.48	32.73	6.02	0.14	—	4	8.40	30	6.48	32.73	6.02	25.72	228	0.069
50	6.37	32.73	6.02	0.24	—	4	8.40	50	6.37	32.73	6.02	25.74	227	0.114
73	6.40	32.74	5.94	0.47	—	4	8.40							

8월(August) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	3	0830	23	05	03	SW1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1009.0	26.8		Cs	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	24.40	32.17	4.80	0.27	0.04	51	7.89	0	24.40	32.17	4.80	21.41	639	0.000
10	25.46	32.37	4.98	0.35	0.13	56	7.88	10	25.46	32.37	4.98	21.24	656	0.065
20	23.88	32.37	4.80	0.23	0.06	58	7.88	20	23.88	32.37	4.80	21.71	611	0.128

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	3	1005	35	5	5	SW 1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1009.0	27.0		Cu	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	26.10	32.38	5.12	0.20	0.02	46	7.91	0	26.10	32.38	5.12	21.05	673	0.000
10	23.55	32.46	5.06	0.21	0.04	41	7.88	10	23.55	32.46	5.06	21.88	595	0.063
20	22.17	32.50	5.08	0.27	0.02	55	7.86	20	22.17	32.50	5.08	22.30	555	0.121
30	12.13	32.53	5.10	0.23	0.06	60	7.89	30	21.13	32.53	5.10	22.60	526	0.175

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	3	1130	47	5	15	SW 1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1009.0	28.1		Ci	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	27.70	32.43	4.92	0.35	0.02	40	7.90	0	27.70	32.43	4.92	20.58	718	0.000
10	26.96	32.44	4.78	0.31	0.01	54	8.00	10	26.96	32.44	4.78	20.83	695	0.071
20	23.35	32.56	5.20	0.35	0.01	48	7.89	20	23.35	32.56	5.20	22.01	582	0.135
30	19.22	32.76	5.38	0.28	0.01	49	7.84	30	19.22	32.76	5.38	23.28	451	0.187
45	16.88	32.85	5.00	0.34	0.01	47	7.83							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	3	1300	66	5	15	SW1	S 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1008.0	28.6		CiSt	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	28.22	32.46	4.60	0.20	0.06	45	7.85	0	28.22	32.46	4.60	20.44	732	0.000
10	27.09	32.46	4.80	0.21	0.01	49	7.83	10	27.09	32.46	4.80	20.80	698	0.072
20	21.38	32.54	5.64	0.27	0.01	53	7.93	20	21.38	32.54	5.64	22.54	531	0.133
30	16.99	32.91	5.92	0.45	0.01	41	7.92	30	16.99	32.91	5.92	23.94	398	0.180
50	15.12	32.98	5.48	0.60	0.01	46	7.90	50	15.12	32.98	5.48	24.41	353	0.255
65	14.47	33.01	5.46	0.51	0.04	43	7.81							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	3	1625	70	4	14	SW 1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	08.0	29.5		CiSt	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	29.17	32.48	4.62	0.47	0.01	36	7.78	0	29.17	32.48	4.62	20.14	761	0.000
10	26.54	32.47	4.80	0.48	0.02	32	7.79	10	26.54	32.47	4.80	20.98	680	0.072
20	19.75	32.63	5.70	0.44	0.01	37	7.72	20	19.75	32.63	5.70	23.04	483	0.130
30	16.12	32.98	5.90	0.59	0.01	34	7.70	30	16.12	32.98	5.90	24.19	374	0.173
50	11.22	32.89	5.70	0.61	0.04	51	7.70	50	11.22	32.89	5.70	25.12	285	0.239
70	11.05	32.88	5.66	0.51	0.10	39	7.62							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	3	1750	67	4	10	SW 1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1007.0	29.8		Ci	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	29.00	32.38	4.80	0.49	0.01	40	7.87	0	29.00	32.33	4.80	20.12	763	0.000
10	27.52	32.35	4.88	0.43	0.01	37	7.89	10	27.52	32.35	4.88	20.58	719	0.074
20	24.33	32.44	5.14	0.56	0.04	39	7.95	20	24.33	32.44	5.14	21.63	618	0.141
30	18.07	34.98	5.80	0.75	0.02	60	7.92	30	18.07	32.59	5.80	23.44	446	0.194
50	10.81	32.84	5.78	0.60	0.01	42	7.80	50	10.81	32.84	5.78	25.15	282	0.267
65	10.29	32.83	5.74	0.69	0.05	74	7.80							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	3	1925	73			SW 1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1007.0	29.4		Alt-St	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	28.60	31.81	4.62	0.56	0.13	36	7.80	0	28.60	31.81	4.62	19.83	791	0.000
10	27.28	32.01	4.86	0.61	0.06	40	7.83	10	27.28	32.01	4.86	20.40	736	0.076
20	25.07	32.40	5.02	0.55	0.01	52	7.82	20	25.07	32.40	5.02	21.38	643	0.145
30	19.06	32.86	6.12	0.53	0.08	42	7.83	30	19.06	32.86	6.12	23.39	450	0.200
50	9.75	32.87	5.92	0.61	0.08	43	7.77	50	9.75	32.87	5.92	25.35	263	0.272
70	9.45	32.86	5.84	0.60	0.06	47	7.73							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	3	2055	75			SW 1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1007.0	29.5		Ci	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	29.00	32.16	4.60	0.47	0.01	43	7.85	0	29.00	32.16	4.60	19.96	779	0.000
10	27.04	32.22	4.92	0.49	0.02	56	7.85	10	27.04	32.22	4.92	20.64	714	0.075
20	25.54	32.40	4.96	0.52	0.01	63	7.80	20	25.54	32.40	4.96	21.24	656	0.143
30	16.39	32.92	4.60	0.52	0.01	70	7.92	30	16.39	32.92	4.60	24.08	385	0.195
50	9.03	32.85	4.60	0.64	0.07	79	7.87	50	9.03	32.85	4.60	25.45	254	0.259
70	7.97	32.80	4.56	0.52	0.14	62	7.84							

309선 해 양 관 측 성 적

Oceanographic Data, Line 309

8월(August) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	3	2220	80			SW1	S 0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	0	1008.0	29.5		Ci	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/l	NO_2-N μgat/l	SiO_2-Si μg.at/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	$\triangle D$ dyn. m
0	29.00	31.10	4.90	0.24	0.06	70	7.90	0	29.00	31.10	4.90	19.16	855	0.000
10	27.82	31.13	4.84	0.29	0.03	70	7.92	10	27.82	31.13	4.84	19.57	816	0.084
20	25.03	32.10	4.98	0.40	0.08	81	7.92	20	25.03	32.10	4.98	21.17	663	0.158
30	16.70	32.80	5.34	0.60	0.08	73	7.84	30	16.70	32.80	5.34	23.92	400	0.211
50	7.82	32.86	5.42	0.48	0.01	70	7.80	50	7.82	32.86	5.42	25.64	236	0.274
75	7.43	32.85	5.40	0.52	0.01	64	7.78	75	7.43	32.85	5.40	25.69	231	0.333

310선 해 양 관 측 성 적

Oceanographic Data, Line 310

3월(March) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color.	Water Trans.	Wave	Swell
03	26	1030	24	5	3	N 3	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	3	1030.0	5.2		Ci	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	5.40	31.87	6.48	0.21	—	5	8.40	0	5.40	31.87	6.48	25.18	259	0.000
10	5.32	31.78	6.02	0.12	—	5	8.40	10	5.32	31.78	6.02	25.11	285	0.028
24	5.30	31.94	6.52	0.19	—	5	8.40	20	5.29	31.86	6.24	25.18	279	0.057

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	26	1200	54	3	4	N 3	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	4	1030.0	5.3		Ci	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	5.60	32.30	6.36	0.03	—	5	8.50	0	5.60	32.30	6.36	25.49	249	0.000
10	5.60	32.33	6.42	0.56	—	5	8.51	10	5.60	32.33	6.42	25.52	247	0.025
20	5.70	32.40	6.42	0.04	—	5	8.48	20	5.70	32.40	6.42	25.56	243	0.049
30	5.70	32.41	6.38	0.03	—	6	8.49	30	5.70	32.41	6.38	25.57	243	0.074
54	5.72	32.42	6.13	0.65	—	6	8.50	50	5.71	32.42	6.19	25.57	242	0.122

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	26	1310	73	4	5	N 3	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	4	1029.0	5.6		AlCu	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.20	32.57	6.23	0.25	—	5	8.49	0	6.20	32.57	6.23	25.63	236	0.000
10	5.14	32.58	6.23	0.09	—	5	8.48	10	5.14	32.58	6.23	25.77	223	0.023
20	6.05	32.58	6.42	0.25	—	5	8.51	20	6.05	32.58	6.42	25.66	234	0.046
30	6.04	32.57	6.35	0.09	—	5	8.22	30	6.04	32.57	6.35	25.65	234	0.069
50	6.02	32.58	6.23	0.19	—	5	8.22	50	6.02	32.58	6.23	25.66	234	0.116
73	6.02	32.58	6.15	0.48	—	5	8.30	75						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	26	1425	83	3	6	NNE 3	NNE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	4	1028.0	5.4		CiSt	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.10	32.49	6.23	0.25	—	5	8.28	0	6.10	32.49	6.23	25.58	241	0.000
10	6.18	32.66	6.33	0.08	—	5	8.30	10	6.18	32.66	6.33	25.71	229	0.024
20	6.22	32.66	6.23	0.24	—	5	8.30	20	6.22	32.66	6.23	25.70	230	0.047
30	6.18	32.65	6.23	0.44	—	6	8.30	30	6.18	32.65	6.23	25.70	230	0.070
50	5.93	32.64	6.19	0.27	—	6	—	50	5.93	32.64	6.19	25.72	228	0.116
83	6.20	32.66	6.02	0.27	—	6	8.42	75	6.05	32.65	6.07	25.71	229	0.173

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	26	1530	80	6	4	NNE 3	NNE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	4	1028.0	5.4		Ci-St	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	6.20	32.74	6.23	0.61	—	5	8.49	0	6.20	32.74	6.23	25.77	223	0.000
10	6.30	32.71	6.33	0.23	—	5	8.45	10	6.30	32.71	6.33	25.73	227	0.023
20	6.23	32.71	6.17	0.14	—	5	8.49	20	6.23	32.71	6.17	25.74	226	0.045
30	6.20	32.74	6.17	0.28	—	5	8.47	30	6.20	32.74	6.17	25.77	224	0.068
50	6.21	32.72	6.00	0.64	—	5	8.41	50	6.21	32.72	6.00	25.75	225	0.113
67	6.25	32.74	6.00	0.85	—	6	8.45	75						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	26	1850	80			N 4	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	5	028.0	4.4		0	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 cc/L	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	6.10	32.74	6.23	0.71	—	5	8.25	0	6.10	32.74	6.23	25.78	222	0.000
10	6.14	32.71	6.25	0.19	—	5	—	10	6.14	32.71	6.25	25.75	225	0.022
20	6.22	32.74	6.38	0.12	—	5	8.36	20	6.22	32.74	6.38	25.76	224	0.045
30	6.17	32.70	6.25	0.36	—	5	—	30	6.17	32.70	6.25	25.74	226	0.067
50	6.19	32.70	6.18	0.45	—	5	8.42	50	6.19	32.70	6.18	25.74	227	0.113
80	6.18	32.91	5.44	0.61	—	6	8.30	75	6.18	32.85	5.62	25.86	215	0.168

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	26	2000	86			NNE 4	NNE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	5	1028.0	4.4			0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	6.50	32.79	6.23	0.21	—	6	8.30	0	6.50	32.79	6.23	25.77	223	0.000
10	5.83	32.77	6.23	0.39	—	5	8.50	10	5.83	32.77	6.23	25.84	217	0.022
20	6.54	32.78	6.13	0.41	—	5	8.49	20	6.54	32.78	6.13	25.75	225	0.044
30	6.64	32.79	6.23	0.13	—	6	8.48	30	6.64	32.79	6.23	25.75	225	0.067
50	6.59	32.80	6.21	0.16	—	5	8.44	50	6.59	32.80	6.21	25.76	224	0.112
86	7.22	32.33	5.61	0.44	—	5	8.32	75	6.92	32.54	5.87	25.52	248	0.171

7월(July) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	28	0335	24			S 1	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	1	1015.0	25.0			0	0

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	24.50	32.57	5.00	0.29	0.15	40	7.89	0	24.50	32.57	5.00	21.68	613	0.000
10	22.48	32.60	5.96	0.28	0.19	51	7.82	10	22.48	32.60	5.96	22.29	556	0.058
20	20.34	32.64	4.90	0.32	0.08	68	7.79	20	20.34	32.64	4.90	22.90	497	0.111

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	29	0150	58			S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	101·04	25.6			0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.00	32.54	4.96	0.25	0.10	34	7.70	0	25.00	32.54	4.96	21.51	630	0.000
10	25.12	32.53	4.98	0.33	0.04	45	7.78	10	25.12	32.53	4.98	21.46	634	0.063
20	19.50	32.69	5.52	0.35	0.05	37	7.77	20	19.50	32.69	5.52	23.15	473	0.119
30	17.20	32.83	5.70	0.28	0.06	49	7.80	30	17.20	32.83	5.70	23.83	408	0.163
55	15.18	32.99	5.38	0.32	0.10	44	7.82	50	15.15	32.98	5.53	24.40	354	0.239

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	29	0010	74			S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	1014.0	25.4			0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.32	32.48	4.72	0.28	0.12	50	7.89	0	25.32	32.48	4.72	21.37	643	0.000
10	25.35	32.48	4.90	0.20	0.01	51	7.89	10	25.35	32.48	4.90	21.36	644	0.064
20	18.11	32.77	5.24	0.33	0.06	51	7.86	20	11.81	32.77	5.24	23.56	434	0.118
30	16.02	32.85	5.56	0.33	0.08	53	7.81	30	16.02	32.85	5.56	24.11	382	0.159
50	13.75	32.95	5.60	0.32	0.08	45	7.73	50	13.75	32.95	5.60	24.68	327	0.230
70	12.36	33.01	5.52	0.27	0.06	53	7.69	75						

St No.	Date	Time	Depth	Water Color	Water trans.	Wave	Swell
06	28	2230	74			S 2	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1013.0	25.5		Cl	1	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	23.35	32.47	4.48	0.36	0.01	29	7.80	0	23.35	32.47	4.48	21.94	588	0.000
10	25.74	32.48	4.40	0.27	0.01	40	7.80	10	25.74	32.48	4.40	21.24	656	0.062
20	22.63	32.62	5.36	0.27	0.01	34	7.86	20	22.63	32.62	5.36	22.26	558	0.123
30	17.48	32.79	5.92	0.20	0.04	33	7.91	30	17.48	32.79	5.92	23.73	418	0.172
50	11.47	34.04	5.64	0.37	0.02	44	7.92	50	11.47	32.98	5.64	25.15	282	0.242
70	10.31	33.00	5.60	0.44	0.02	53	7.91	75						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	28	1925	77			S 2	S2

Wind		Baro,	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1013.0	26.6		Cu	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	25.79	32.37	4.66	0.41	0.01	61	7.70	0	25.79	32.37	4.66	21.14	665	0.000
10	25.41	32.37	4.74	0.27	0.01	55	7.70	10	25.41	32.37	4.74	21.26	654	0.066
20	19.38	32.70	5.42	0.24	0.04	58	7.72	20	19.38	32.70	5.42	23.19	469	0.122
30	13.66	32.09	6.02	0.27	0.01	47	7.83	30	13.66	32.09	6.02	24.80	316	0.162
50	9.46	32.98	5.76	0.36	0.02	39	7.83	50	9.46	32.98	5.76	25.49	250	0.218
75	8.79	32.92	5.80	0.36	0.03	41	7.72	75	8.79	32.92	5.80	25.55	244	0.280

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	28	1745	81	4	14	S 4	S 3

Wind		Baro.	Air temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	4	1013.0	27.5		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	26.35	32.18	5.26	0.35	0.02	57	7.72	0	26.35	32.18	5.26	20.82	695	0.000
10	25.68	32.18	5.32	0.43	0.01	37	7.80	10	25.68	32.18	5.32	21.03	676	0.069
20	23.11	32.56	5.40	0.40	0.10	47	7.80	20	23.11	32.56	5.40	22.08	576	0.131
30	13.99	32.91	5.88	0.36	0.04	78	7.80	30	13.99	32.91	5.88	24.60	335	0.177
50	7.56	32.92	6.04	0.61	0.02	47	7.80	50	7.56	32.92	6.04	25.73	227	7.233
80	7.37	32.91	5.82	0.53	0.02	65	7.70	75	6.61	32.91	5.89	25.85	216	0.289

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	28	1620	80	4	11	S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amounrt	
S	4	1013.0	27.9		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.90	31,92	5.00	0.40	0.02	57	7.60	0	25.90	31.92	5.00	20.77	701	0.000
10	25.91	31.92	4.82	0.37	0.01	37	7.85	10	25.91	31.92	4.82	20.77	701	0.070
20	24.66	32.37	5.08	0.37	0.10	47	7.90	20	24.66	32.37	5.08	21.48	633	0.137
30	21.99	32.59	5.26	0.31	0.04	78	7.90	30	21.99	32.59	5.26	22.42	543	0.196
50	7.90	32.89	4.96	0.59	0.02	47	7.80	50	7.90	32.89	4.96	25.65	235	0.274
80	12.04	32.89	5.02	0.43	0.02	65	7.72	75	—	32.92				

311선 해양관측성적

Oceanographic Data, Line 311

3월(March) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	28	1000	38	6	3	NNE 2	NNE 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	4	1028.8	6.7		Ci	2	0

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-F μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	6.60	33.21	5.50	—	—	10	8.12	0	6.60	33.21	5.50	26.09	193	0.000
10	8.16	33.21	5.67	1.38	—	8	8.11	10	8.16	33.21	5.67	25.87	214	0.020
20	8.12	33.20	5.46	—	—	8	8.13	20	8.12	33.20	5.46	25.87	214	0.042
30	8.18	33.21	5.52	—	—	—	8.15	30	8.18	33.21	5.52	25.08	214	0.063
38	8.20	33.15	5.44	—	—	—	8.25	50						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	27	0700	79	4	3	N4	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	5	1028.0	5.0		0	2	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$dt\ 10^{-5}$ cm^3/g	△D dyn. m
0	6.50	32.67	6.54	0.63	—	8	—	0	6.50	32.67	6.54	25.67	232	0.000
10	6.61	32.64	5.96	0.85	—	8	—	10	6.61	32.64	5.96	25.64	236	0.000
20	6.54	32.67	6.15	0.56	—	7	8,09	20	6.54	32.67	6.15	25.67	233	0.047
30	6.52	32.68	5.92	0.52	—	7	8.15	30	6.52	32.68	5.92	25.68	232	0.070
50	6.59	32.74	5.81	0.35	—	7	8.15	50	6.59	32.74	5.81	25.72	229	0.116
79	6.57	32.71	5.94	0.39	—	6	8.14	75	6.58	32.72	5.90	25.70	230	0.174

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	27	0520	75			N 5	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	6	1028.0	4.6		0	0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.20	33.00	5.92	0.65	—	5	8.01	0	6,20	33.00	5.92	25.97	204	0.000
10	7.16	33.00	5.69	0.49	—	5	8.02	10	7.16	33.00	5.69	25.85	216	0.021
20	7.20	33.00	5.71	0.28	—	5	8.05	20	7.20	33.00	5.71	25.84	217	0.043
30	7.51	33.09	5.61	0.72	—	5	8.10	30	7.51	33.09	5.61	25.87	214	0.064
50	7.51	33.12	5.66	1.14	—	5	8.10	50	7.51	33.12	5.66	25.89	212	0.107
75	7.52	33.12	5.61	1.69	—	5	7.98	75	7.52	33.12	5.61	25.89	213	0.160

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	27	0255	97			NNE 5	N 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	4	1026.1	6.5				0

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	6.50	32.97	5.83	0.75	—	7	—	0	6.50	32.97	5.83	25.91	210	0.000
10	6.74	32.96	5.73	0.59	—	8	8.48	10	6.74	32.96	5.73	25.87	214	0.021
20	4.58	32.96	6.02	0.49	—	7	8.38	20	4.58	32.96	6.02	26.13	189	0.041
30	6.70	32.96	6.02	0.29	—	6	8.20	30	6.70	32.96	6.02	25.88	213	0.062
50	6.82	32.96	6.02	0.40	—	6	8.10	50	6.82	32.96	6.02	25.86	215	0.105
75	6.85	32.97	5.71	1.18	—	6	8.08	75	6.85	32.97	5.71	25.86	215	0.158
97	6.93	32.97	5.73	2.14	—	7	8.00	100						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	27	0110	77			NNE 4	NNE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	5	1028.0	4.3			0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	7.00	33.00	5.79	0.65	—	6	8.41	0	7.00	33.00	5.79	25.87	214	0.000
10	7.11	32.99	5.64	0.49	—	7	8.41	10	7.11	32.99	5.64	25.84	216	0.022
20	7.09	33.00	5.72	0.42	—	6	8.41	20	7.09	32.00	5.72	25.85	215	0.043
30	7.22	33.01	5.76	0.88	—	6	8.41	30	7.22	33.01	5.76	25.84	216	0.065
50	7.22	33.01	5.72	1.12	—	7	—	50	7.22	33.01	5.72	25.84	217	0.108
70	7.21	33.01	5.65	1.12	—	6	—	75						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	27	0000	94			NNE 4	NNE 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	5	1029.0	4.9			0	B

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	7.10	33.04	5.81	0.25	—	5	8.34	0	7.10	33.04	5.81	25.88	212	0.000
10	7.28	33.02	5.85	0.36	—	5	8.42	10	7.28	33.02	5.85	25.84	216	0.021
20	7.31	32.90	6.15	0.48	—	6	8.44	20	7.31	32.90	6.15	25.75	225	0.044
30	6.83	32.91	5.80	0.42	—	6	8.43	30	6.83	32.91	5.80	25.82	219	0.066
50	6.85	33.04	5.57	0.75	—	7	8.44	50	6.85	33.04	5.57	25.92	210	0.109
69	7.44	33.05	5.89	0.98	—	8	8.44	75						

7월(July) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	25	1800	30			S 1	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1012.0	23.3		X	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.53	32.61	5.06	0.29	0.01	74	7.80	0	21.53	32.61	5.06	22.56	529	0.000
10	20.33	32.69	5.28	0.28	0.08	58	7.87	10	20.33	32.69	5.28	22.94	493	0.051
20	19.26	32.73	5.62	0.49	0.01	58	7.83	20	19.26	32.73	5.62	23.24	464	0.099
30	18.35	32.81	5.38	0.53	0.01	72	7.83	30	18.35	32.81	5.38	23.53	437	0.144

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	25	1930	78			S 1	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1012.0	24.0		Cu	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	21.73	32.60	4.68	0.27	0.15	62	7.83	0	21.73	32.60	4.68	22.49	535	0.000
10	21.38	32.62	5.82	0.27	0.02	57	7.90	10	21.38	32.62	5.82	22.60	525	0.053
20	20.60	32.62	5.70	0.27	0.06	50	7.90	20	20.60	32.62	5.70	22.81	505	0.105
30	20.33	32.62	5.76	0.29	0.01	57	7.90	30	20.33	32.62	5.76	22.89	498	0.155
50	17.72	32.66	5.42	0.35	0.01	58	7.80	50	17.72	32.66	5.42	23.57	433	0.248
75	17.01	32.78	5.40	1.00	0.01	65	7.78	75	17.01	32.78	5.40	23.83	408	0.354

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	27	0820	81	4	13	SW 3	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1013.0	26.8		Cu	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.45	32.53	4.72	0.43	0.01	61	7.78	0	24.45	32.53	4.72	21.67	615	0.000
10	24.85	32.54	4.96	0.44	0.01	52	7.90	10	24.85	32.54	4.96	21.55	626	0.062
20	19.10	32.70	5.64	0.56	0.01	53	7.90	20	19.10	32.70	5.64	23.26	462	0.117
30	19.65	32.77	5.60	0.61	0.01	56	7.92	30	16.15	32.77	5.60	24.02	390	0.159
50	13.37	33.00	5.60	0.51	0.10	51	7.90	50	13.37	33.00	5.60	24.79	317	0.230
75	9.60	32.77	5.22	0.41	0.05	50	7.90	75	9.60	32.77	5.22	25.30	268	0.303

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	27	1000	86	4	12	SW 3	SW3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	3	1013.0	26.0		Cu	7	BC

OBSERVED								INTERPOLATE D				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	No_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.25	31.67	4.82	0.41	0.01	93	7.77	0	25.25	31.67	4.82	20.78	700	0.000
10	25.43	32.50	4.90	0.44	0.00	90	7.95	10	25.43	32.50	4.90	21.35	645	0.067
20	23.70	32.51	5.08	0.48	0.01	60	7.92	20	23.70	32.51	5.08	21.87	596	0.129
30	13.08	33.03	5.20	0.53	0.01	71	7.80	30	13.08	33.03	5.20	24.87	309	0.175
50	8.95	33.00	5.90	0.71	0.02	53	7.65	50	8.95	33.00	5.90	25.58	242	0.230
75	8.65	32.98	6.00	0.75	0.04	71	7.70	75	8.65	32.98	6.00	25.61	239	0.290
85	8.54	32.98	6.00	0.87	0.06	66	7.53	100						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	28	1030	84	4	12	SSE 2	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	4	1014.0	26.7		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2 N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\frac{dt}{cm^3/g}$	△D dyn. m
0	25.55	32.50	5.08	0.40	0.01	45	7.68	0	25.55	32.50	5.08	21.31	649	0.000
10	25.31	32.57	5.24	0.41	0.01	55	7.65	10	25.31	32.57	5.24	21.44	637	0.064
20	23.42	32.53	5.62	0.39	0.08	62	7.80	20	23.42	32.53	5.62	21.97	587	0.126
30	12.67	33.04	5.74	0.39	0.04	47	7.72	30	12.67	33.04	5.74	24.96	301	0.170
50	8.96	33.03	5.88	0.49	0.19	57	7.72	50	8.96	33.03	5.88	25.60	240	0.224
75	8.70	33.00	5.74	0.60	0.12	38	7.65	75	8.70	33.00	5.74	25.62	238	0.284
80	8.65	33.03	5.70	0.65	0.11	70	7.72	100						

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	28	1150	79	4	12	SSE 3	S 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	4	1014.0	26.4		Cu	3	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$10^{-5}\frac{dt}{cm^3/g}$	△D dyn. m
0	25.52	32.61	5.02	0.56	0.01	50	7.63	0	25.52	32.61	5.02	21.40	640	0.000
10	25.38	32.63	4.80	0.40	0.01	49	7.80	10	25.38	32.63	4.80	21.46	635	0.604
20	24.49	32.59	5.00	0.45	0.01	48	7.78	20	24.49	32.59	5.00	21.70	612	0.126
30	15.43	32.87	5.40	0.47	0.01	55	7.80	30	15.43	32.87	5.40	24.26	367	0.175
50	8.16	32.94	6.08	0.97	0.06	52	7.70	50	8.16	32.94	6.08	25.66	234	0.236
75	7.84	32.95	6.02	0.68	0.02	56	7.70	75	7.84	32.95	6.02	25.71	229	0.294

312 선 해 양 관 측 성 적

Oceanographic Data, Line 204

3월(March) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	30	0740	78	4	5	NNW	NNW

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	3	1027.0	7.6		Cu	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	12.40	34.20	5.10	0.72	—	5	8.20	0	12.40	34.20	5.10	25.91	210	0.000
10	12.22	34.22	4.82	0.44	—	6	8.25	10	12.22	34.22	4.82	25.96	205	0.021
20	12.90	34.22	4.86	0.23	—	5	8.17	20	12.90	34.22	4.86	25.83	218	0.042
30	12.62	34.22	4.88	0.27	—	7	8.24	30	12.62	34.22	4.88	25.88	213	0.064
50	12.04	34.20	4.97	0.45	—	5	8.27	50	12.04	34.20	4.97	25.98	204	0.105
78	12.05	34.20	5.10	0.32	—	6	8.28	75	12.00	34.19	5.09	25.99	204	0.157

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	30	0900	68	4	1	NNW 2	NNW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	3	1029.0	8.1		Ci	6	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	10.18	34.03	5.06	0.69	—	7	8.08	0	10.18	34.03	5.06	26.18	184	0.000
10	10.75	33.99	5.06	0.59	—	6	8.20	10	10.75	33.99	5.06	26.05	196	0.019
20	10.78	33.99	5.08	0.92	—	7	8.25	20	10.78	33.99	5.08	26.05	197	0.039
30	10.72	33.99	4.88	0.61	—	7	8.27	30	10.72	33.99	4.88	26.06	196	0.058
50	10.71	33.98	4.98	0.52	—	9	8.27	50	10.71	33.98	4.98	26.05	197	0.098
68	10.78	33.98	5.08	0.98	—	10	8.24	75						

St No.	Date	Time	Depth	Water Color	Water Trans	Wave	Swell
04	30	1030	77	4	2	NNW 1	NNW 1

Wind		Baro.	Air Temp.		Cloud		Weather
Direc.	Force		Dry	Wet	Type	Amount	
NNW	2	1029.0	1010.1		CiSt	4	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.20	33.96	5.19	0.61	—	8	8.12	0	10.20	33.96	5.19	26.13	189	0.000
10	9.93	34.21	5.21	0.79	—	7	8.22	10	9.93	34.21	5.21	26.37	166	0.018
20	9.91	34.22	5.21	0.83	—	8	—	20	9.91	34.22	5.21	26.38	165	0.034
30	9.91	34.22	5.12	0.80	—	12	8.20	30	9.91	34.22	5.12	26.38	166	0.051
50	9.96	34.22	5.08	0.76	—	7	8.21	50	9.96	34.22	5.08	26.37	167	0.084
77	10.31	34.33	5.08	1.44	—	8	8.21	75	10.27	34.31	5.08	26.39	165	0.126

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	30	1140	80	6	2	NNW 1	NNW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	2	1029.0	8.6		CiSt	7	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	10.50	34.26	5.19	0.24	—	6	8.21	0	10.50	34.26	5.19	26.31	172	0.000
10	9.99	34.32	5.19	0.47	—	7	8.13	10	9.99	34.32	5.19	26.44	159	0.017
20	10.38	34.33	5.19	0.61	—	8	8.20	20	10.38	34.33	5.19	26.38	165	0.033
30	8.70	34.34	5.46	0.61	—	8	8.27	30	8.70	34.34	5.46	26.67	138	0.08
50	10.39	34.36	5.00	0.92	—	9	8.28	50	10.39	34.36	5.00	26.41	164	0.073
80	10.52	34.38	4.98	0.85	—	7	8.24	75	10.69	34.37	4.93	26.36	168	0.120

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	30	1600	109	5	2	NNE 2	NNE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	3	1026.0	9.8		CiSt	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	11.70	34.34	5.04	0.68	—	6	8.24	0	11.70	34.34	5.04	26.15	187	0.000
10	10.24	34.35	5.06	0.48	—	6	8.13	10	10.24	34.35	5.06	26.42	161	0.017
20	10.29	34.35	5.19	0.36	—	6	8.27	20	10.29	34.35	5.19	26.41	162	0.034
30	10.27	34.35	5.13	0.50	—	6	8.27	30	10.27	34.35	5.13	26.42	162	0.050
50	10.24	34.27	4.09	0.76	—	8	8.29	50	10.24	34.27	4.09	26.36	168	0.083
75	10.28	34.29	5.06	0.65	—	8	7.92	75	10.28	34.29	5.06	26.37	168	0.125
109	10.40	34.25	4.88	0.28	—	7	8.01	100	10.36	34.26	5.10	26.34	171	0.168

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	30	1835	87	5	3	SW 1	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1026.0	9.7		CiSt	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μga/tL	NO_2-N μgat/L	SiO_2-Si σgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	10.50	34.14	5.13	0.41	—	6	7.99	0	10.50	34.14	5.13	26.21	181	0.000
10	10.20	34.13	4.75	0.16	—	7	7.94	10	10.20	34.13	4.75	26.26	177	0.018
20	9.87	34.17	5.09	0.27	—	7	8.08	20	9.87	34.17	5.09	26.35	169	0.035
30	9.87	34.17	5.11	0.35	—	7	8.10	30	9.87	34.17	5.11	26.35	169	0.052
50	9.99	34.19	4.92	0.21	—	8	7.99	50	9.99	34.19	4.92	26.34	170	0.086
75	9.99	34.20	5.05	0.32	—	7	8.10	75	9.99	34.20	5.05	26.35	169	0.129
87	10.07	34.25	4.98	1.01	—	8	8.10							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	30	1850	74	5	3	SW 1	SW 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1025	7.6		CiSt	9	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	9.80	34.21	5.27	0.45	—	5	8.15	0	9.80	34.21	5.27	26.39	164	0.000
10	9.83	34.15	5.19	0.33	—	5	8.10	10	9.83	34.15	5.19	26.34	169	0.017
20	9.86	34.16	5.23	0.65	—	6	8.12	20	9.86	34.16	5.23	26.34	169	0.034
30	9.85	34.16	5.11	0.39	—	6	8.12	30	9.85	34.16	5.11	26.34	169	0.051
50	9.88	34.16	5.09	0.65	—	7	8.12	50	9.88	34.16	5.09	26.34	170	0.085
74	10.30	34.28	5.09	0.61	—	7	8.18							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	30	2000	88			NE 1	NE 2

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1024.0	7.9		CiSt	5	BC

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	8.10	33.71	5.48	0.53	—	5	8.19	0	8.10	33.71	5.48	26.27	176	0.000
10	8.22	33.65	5.40	0.41	—	6	8.18	10	8.22	33.65	5.40	26.20	182	0.018
20	8.20	33.67	5.81	0.48	—	6	8.18	20	8.20	33.67	5.81	26.22	180	0.036
30	8.26	33.70	5.67	0.32	—	7	8.17	30	8.26	33.70	5.67	26.24	179	0.054
50	8.82	33.96	5.35	0.17	—	6	8.10	50	8.82	33.96	5.35	26.35	168	0.089
75	9.39	34.03	5.23	0.68	—	6	8.14	75	9.39	34.03	5.23	26.32	172	0.132
88	9.41	34.03	5.21	0.23	—	6	8.20							

7월(July) 조사선(Buk Han San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	23	1450	82	4	8	S 1	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1011.1	25.2		Cu-Nb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.55	31.42	5.28	0.40	0.01	54	7.60	0	24.55	31.42	5.28	20.80	698	0.000
10	23.66	31.40	5.62	0.29	0.01	47	7.70	10	23.66	31.40	5.62	21.04	674	0.069
20	17.25	32.18	6.04	0.27	0.01	38	7.72	20	17.25	32.18	6.04	23.32	457	0.126
30	13.20	32.92	6.18	0.31	0.00	56	7.70	30	13.20	32.92	6.18	24.76	319	0.164
50	12.12	33.31	5.68	0.29	0.01	63	7.58	50	12.12	33.31	5.68	25.28	270	0.223
80	12.12	33.32	5.32	0.20	0.90	111	7.58	75	11.98	33.36	5.35	25.34	264	0.290

St No.	Date	Time	Depth	Water Color	Water Trans	Wave	Swell
03	23	1415	68	4	10	S 1	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1011.0	25.9		Cu-Nb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.15	31.66	4.84	0.40	0.01	44	7.80	0	24.15	31.66	4.84	21.10	669	0.000
10	22.47	31.73	5.16	0.33	0.01	35	7.80	10	22.47	31.73	5.16	21.63	618	0.064
20	12.24	33.04	5.82	0.40	0.01	43	7.72	20	12.24	33.04	5.82	25.04	292	0.110
30	11.61	33.31	5.78	0.33	0.01	38	7.77	30	11.61	33.31	5.78	25.37	262	0.138
50	11.71	33.32	5.44	0.31	0.13	75	7.70	50	11.71	33.32	5.44	25.36	262	0.190
65	11.69	33.30	5.10	0.33	0.04	61	7.70							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	23	1250	60	04	06	S 1	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	2	1011.0	23.4		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	21.30	32.54	5.24	0.32	—	52	7.76	0	21.30	32.54	5.24	22.57	528	0.000
10	20.09	32.50	5.26	0.43	—	49	7.82	10	20.09	32.50	5.26	22.86	501	0.052
20	15.54	32.83	5.28	0.53	—	74	7.73	20	15.54	32.83	5.28	24.20	373	0.095
30	11.24	33.33	5.28	0.27	—	94	7.74	30	11.24	33.33	5.28	25.45	254	0.127
50	11.15	33.38	5.20	0.27	—	101	7.78	50	11.15	33.38	5.20	25.51	248	0.177
60	11.15	33.38	5.12	0.31	—	58	7.82							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	23	1000	84	4	6	SW 1	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1012.0	23.2		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}\ cm^3/g}$	△D dyn. m
0	20.23	32.48	5.02	0.27	—	57	7.90	0	20.23	32.48	5.02	22.81	506	0.000
10	18.19	32.66	5.10	0.27	—	16	7.93	10	18.19	32.66	5.10	23.46	443	0.048
20	14.65	32.99	5.36	0.35	—	66	7.82	20	14.65	32.99	5.36	24.52	342	0.087
30	12.00	33.31	5.38	0.40	—	68	7.80	30	12.00	33.31	5.38	25.30	268	0.117
50	11.43	33.40	5.42	0.51	—	70	7.80	50	11.43	33.40	5.42	25.47	252	0.170
80	11.38	33.41	5.06	0.55	—	83	7.80	75	11.32	33.41	5.15	25.51	249	0.232

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	23	0810	88	4	6	S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1012.0	24.9		CuNb	8	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	22.94	32.48	5.02	0.27	—	66	7.86	0	22.94	32.48	5.02	22.07	576	0.000
10	19.78	32.84	5.26	0.25	—	63	7.85	10	19.78	32.84	5.26	23.20	469	0.052
20	15.88	32.99	5.32	0.49	—	50	7.83	20	17.86	32.99	5.32	23.79	412	0.096
30	16.52	32.96	5.36	0.53	—	60	7.80	30	16.52	32.96	5.36	24.08	384	0.136
50	13.75	33.14	5.40	0.35	—	62	7.87	50	13.75	33.14	5.40	24.82	314	0.206
75	10.99	33.34	5.48	0.36	—	64	7.90	75	10.99	33.34	5.48	25.51	248	0.277
85	10.85	33.34	5.04	0.67	—	74	7.90							

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	23	0650	88	3	9	S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1011.0	25.0		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	dt 10^{-5} cm^3/g	△D dyn. m
0	22.32	33.32	5.06	0.16	—	41	7.90	0	22.32	33.32	5.06	22.88	499	0.000
10	22.24	32.37	5.08	0.24	—	40	7.83	10	22.24	32.37	5.08	22.18	566	0.053
20	20.67	32.50	5.30	0.32	—	40	7.90	20	20.67	32.50	5.30	22.70	516	0.107
30	17.11	32.75	5.42	0.27	—	50	7.90	30	17.11	32.75	5.42	23.79	412	0.154
50	14.67	33.00	5.16	0.27	—	62	7.90	50	14.67	33.00	5.16	24.52	342	0.230
85	11.34	33.15	4.96	0.27	—	68	7.90	75	12.16	33.14	4.98	25.14	283	0.308

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	23	0530	80			S 5	S 4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1012.0	25.0		CuNb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	24.10	31.65	5.12	0.27	—	64	7.72	0	24.10	31.65	5.12	21.11	668	0.000
10	23.62	31.91	5.06	0.27	—	60	7.95	10	23.62	31.91	5.06	21.44	636	0.065
20	17.27	32.85	5.24	0.27	—	58	7.90	20	22.36	32.85	5.24	22.51	535	0.124
30	20.36	33.08	5.40	0.27	—	68	7.83	30	20.36	33.08	5.40	23.23	466	0.174
50	14.19	33.18	5.22	0.31	—	76	7.82	50	14.19	33.18	5.22	24.76	320	0.253
75	11.64	33.25	5.14	0.29	—	76	7.82	75	11.64	33.25	5.14	25.32	266	0.325

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	23	1450	81			S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1011.0	34.2		Cu-Nb	10	C

OBSERVED								INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{dt}{10^{-5}}$ cm^3/g	△D dyn. m
0	25.15	30.99	4.76	0.37	—	60	7.84	0	25.15	30.99	4.76	20.30	746	0.000
10	25.57	30.99	5.00	0.33	—	56	7.90	10	25.57	30.99	5.00	20.17	758	0.075
20	18.64	32.31	5.88	0.44	—	44	8.00	20	18.64	32.31	5.88	23.08	480	0.137
30	14.53	33.16	5.88	0.40	—	55	7.92	30	14.53	33.16	5.88	24.68	327	0.178
50	19.63	33.21	5.86	0.33	—	63	7.90	50	—	33.21	5.86	—	—	—
80	19.52	33.21	5.30	0.27	—	71	7.84	75	—	33.21	5.44	—	—	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	23	0530	80			S 5	S 4

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1012.0	25.0		CuNb	10	C

OBSERVED									INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{d't}{10^{-3}}$ cm³/g	D dyn. m
0	24.10	31.65	5.12	0.27	—	64	7.72	0	24.10	31.65	5.12	21.11	668	0.000
10	23.62	31.91	5.06	0.27	—	60	7.95	10	23.62	31.91	5.06	21.44	636	0.065
20	17.27	32.85	5.24	0.27	—	58	7.90	20	22.36	32.85	5.24	22.51	535	0.12[illegible]
30	20.36	33.08	5.40	0.27	—	68	7.83	30	20.36	33.08	5.40	23.23	466	0.17[illegible]
50	14.19	33.18	5.22	0.31	—	76	7.82	50	14.19	33.18	5.22	24.76	320	0.253
75	11.64	33.25	5.14	0.29	—	76	7.82	75	11.64	33.25	5.14	25.32	256	0.326

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	23	1450	81			S 4	S 3

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1011.0	34.2		Cu-Nb	10	C

OBSERVED									INTERPOLATED				CALCULATED		
Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH	Z m	T ℃	S ‰	O_2 %	σt g/L	$\frac{d't}{10^{-3}}$ cm³/g	D dyn. m
0	25.15	30.99	4.76	0.37	—	60	7.84	0	25.15	30.99	4.76	20.30	746	0.000
10	25.57	30.99	5.00	0.33	—	56	7.90	10	25.57	30.99	5.00	20.17	758	0.075
20	18.64	32.31	5.88	0.44	—	44	8.00	20	18.64	32.31	5.88	23.08	480	0.137
30	14.53	33.16	5.88	0.40	—	55	7.92	30	14.53	33.16	5.88	24.68	327	0.178
50	19.63	33.21	5.86	0.33	—	63	7.90	50	—	33.21	5.86	—	—	—
80	19.52	33.21	5.30	0.27	—	71	7.84	75	—	33.21	5.44	—	—	—

제 3 편

횡단정선 해양 관측 성적

(수온. 염분. 산소. 인삼염. 질산염. 규산염. pH. 및 기상관측자료)

◇

PART 3

SECTIONAL OCEANOGRAPHIC OBSERVATIONS

(Temperature. Salinity. Oxygen. PO_4-P. NO_2-N. SiO_2-Si. pH.
and the Meteorological Data)

1966

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G. Oceanographic Data Line 306 357

동 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS EASTERN WATERS

1966

102선 해양관측성적

Oceanographic Data, Line 102

Date		April							
St. No.		04	06	04	06	07	08	09	10
Day		18	18	26	25	25	25	25	25
Item	Time / Z(m)	1416			2350	2200	2020	1750	1610
T ℃	0	14.20	14.70	—	—	—	—	—	—
	10	13.50	14.50	14.97	14.76	14.82	14.91	14.31	14.24
	20	13.10	14.00	13.99	15.24	14.93	14.92	14.29	14.01
	30	12.40	14.00	12.98	14.79	14.39	14.70	14.01	13.90
	50	—	13.20	7.67	13.45	13.20	13.67	13.53	13.62
	75	—	9.90	—	7.35	12.95	13.41	12.96	13.46
	100	—	7.70	—	3.72	19.79	10.11	12.10	12.97
	125	—	—	—	2.19	2.36	5.86	—	—
	150	—	—	—	1.30	1.15	2.21	7.55	10.37
	200	—	—	—	—	—	—	2.84	4.19
	Botm.	7.20	—	—	—	—	—	—	—
S ‰	0	—	—	34.10	34.20	34.25	34.18	34.21	34.21
	10	—	—	34.10	34.20	34.23	34.18	34.21	34.17
	20	—	—	34.06	34.19	34.22	34.17	34.18	34.16
	30	—	—	33.91	34.19	33.15	34.17	34.17	34.15
	50	—	—	33.79	34.18	33.98	34.16	34.16	34.15
	75	—	—	—	33.85	33.96	34.15	34.13	34.15
	100	—	—	—	33.68	33.93	34.99	34.09	—
	125	—	—	—	33.66	33.71	33.76	—	—
	150	—	—	—	33.66	33.66	33.70	33.85	34.97
	200	—	—	—	—	—	—	33.84	34.07
	Botm.	—	—	—	—	—	—	—	—
Depth(m)		54	—	50	—	—	—	—	—
Secchi(m)		7	14	—	—	—	—	—	—
Color		—	—	3	—	—	—	—	—
Sea		3	2	—	—	—	—	—	—
Swell		3	2	—	—	—	—	—	—
Air Temp(℃)		12.5	12.3	—	—	—	—	—	—
Baro(mm)		—	—	—	—	—	—	—	—
Wind		S4	ESE2	—	—	—	—	—	—
Cloud		Ci-St2	Ci-St3	—	—	—	—	—	—
Weather		BC	BC	—	—	—	—	—	—

102선 해 양 관 측 성 적

Oceanographic Data, Line 102

5월(May) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	15	1250	80	4	8	3	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	3	1008	17	16.4	Si-St	5	C

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	14.23	34.47	6.49	0.22	—	10.53	8.18
10	12.17	34.53	6.44	0.13	—	5.92	8.18
20	11.85	34.54	6.38	0.27	—	5.92	8.22
30	10.88	34.54	5.97	0.20	—	7.89	8.22
50	5.38	34.39	5.94	0.16	—	10.53	8.20
底	2.46	34.30	6.15	0.53	—	1.97	8.00

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	14	1210	130	5	9	3	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	11	1008	16.20	15.80	Ci-St	5	C

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	14.00	34.30	6.48	0.11	—	19.74	8.20
10	12.47	34.54	6.64	0.16	—	3.95	8.26
20	11.02	34.53	6.23	0.20	—	2.63	8.20
30	5.93	34.52	5.76	0.20	—	8.55	8.10
50	3.37	—	6.23	0.21	—	7.89	8.10
75	2.35	—	6.23	0.16	—	3.29	8.08
100	1.77	34.28	6.12	0.11	—	2.63	8.00
底	1.52	34.29	5.90	0.09	—	7.89	7.96

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	14	1001	1300	4	10	3	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSW	10	1010	16.21	15.80	CiSt	10	C

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	15.63	34.34	6.35	0.35	—	5.92	8.30
10	14.73	34.49	6.04	0.16	—	1.97	8.30
20	14.61	34.25	6.02	0.27	—	6.58	8.32
30	12.95	34.55	6.02	0.19	—	3.95	8.30
50	11.01	34.35	4.92	0.22	—	3.95	8.20
75	10.96	34.32	5.71	0.86	—	2.63	8.00
100	10.90	34.34	5.77	0.16	—	0.66	7.94
125	10.89	34.34	5.81	0.22	—	4.60	7.90
150	3.87	34.33	5.86	0.31	—	5.26	7.90
200	2.79	34.33	5.98	0.16	—	0.66	7.80
250	1.55	34.35	5.65	0.51	—	3.95	7.88
300	0.93	34.33	5.71	1.41	—	3.29	7.82
400	0.57	34.35	5.71	0.29	—	6.58	7.82
500	0.39	34.35	5.35	0.29	—	5.26	7.82

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	14	0830	1520		10	3	L

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1011	16.6	17.2	CiSt	2	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_4-N μgat/L	SiO_2-Si μgat-L	pH
0	16.26	34.62	5.71	0.03	—	3.29	8.35
10	15.87	34.70	6.12	0.08	—	5.92	8.35
20	15.74	34.74	5.92	0.08	—	3.95	8.38
30	15.71	34.75	5.76	0.09	—	4.60	8.32
50	15.25	34.70	5.24	0.39	—	4.60	8.32
75	14.87	34.60	5.14	0.13	—	6.58	8.30
100	13.32	34.70	5.29	0.43	—	4.60	8.20
125	9.72	34.57	5.52	0.65	—	—	8.18
150	4.20	34.35	5.65	0.80	—	—	8.16
200	2.34	34.69	5.83	0.43	—	3.95	8.08
250	1.07	34.66	5.71	0.37	—	5.92	7.94
300	0.83	34.28	5.61	0.16	—	3.95	7.90
400	0.44	34.28	5.63	0.81	—	—	7.86
500	0.33	34.29	5.42	1.44	—	1.97	7.85

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	14	0610	1690			1	S

Wind		Baro.	Air Temp.		Cloud		Wedther
Direction	Force.		Dry	Wet	Type	Amount	
S	3	1011	16.10	16.0	Ci St	Z	B

Z *m*	T ℃	S ‰	O_2 %	PO_4-O μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.07	34.67	5.71	0.07	—	3.95	8.30
10	15.49	34.78	5.75	0.11	—	3.29	8.32
20	15.28	34.77	5.81	0.11	—	4.60	8.38
30	14.96	34.74	—	0.04	—	0.66	8.34
50	14.11	34.73	—	0.19	—	0.66	8.36
75	12.27	34.70	5.97	—	—	—	8.30
100	9.60	34.50	6.07	—	—	—	8.30
125	8.31	34.44	5.96	—	—	—	8.24
150	6.21	34.33	5.96	0.20	—	3.29	8.20
200	1.61	34.17	5.92	0.55	—	1.32	8.10
250	1.40	34.20	5.81	0.77	—	3.29	8.10
300	1.01	34.20	5.76	1.14	—	0.66	8.10
400	0.58	34.22	5.40	1.33	—	4.60	8.00
500	0.51	34.20	5.50	—	—	0.66	7.90

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	14	0440	1870			0	0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	yPe	Amount	
SW	3	1001	16.10	16.0	0	0	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat-L	pH
0	15.38	34.62	5.81	0.39	—	1.97	—
10	15.39	34.73	5.79	0.13	—	4.60	8.40
20	14.97	34.74	5.81	0.19	—	19.07	8.40
30	14.49	--	5.86	0.57	—	0.66	8.35
50	12.87	34.69	5.90	1.73	—	—	8.32
75	9.92	34.58	6.17	0.27	-	3.29	8.30
100	8.15	34.46	6.23	0.43		5.26	8.28
125	5.97	34.46	6.33	0.43	--	3.29	8.20
150	4.15	34.26	6.35	0.64		6.58	8.10
200	2.27	34.24	6.23	1.36	—	1.97	8.04
250	1.28	34.29	—	—	—	—	8.00
300	1.01	34.27	5.81	0.17	—	11.18	7.98
400	0.64	34.29	5.83	0.55	—	15.13	7.94
500	0.45	34.27	5.94	0.49	—	5.92	7.90

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	14	0130	800			0	0

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1012	16.15	16.10	0	0	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.72	—	5.09	0.24	—	10.53	8.24
10	16.66	34.20	5.19	0.33	—	5.92	8.28
20	16.21	34.27	5.44	0.39	—	20.39	8.30
30	15.59	34.33	5.73	0.13	—	13.82	8.36
50	15.14	34.29	5.88	0.11	—	4.60	8.34
75	12.78	34.28	6.02	—	—	0.66	8.30
100	8.81	34.34	5.44	0.36	—	3.95	8.24
125	5.42	34.06	5.40	0.24	—	10.53	8.20
150	4.24	34.08	5.40	0.27	—	7.89	8.12
200	1.71	34.79	5.32	0.32	—	9.87	8.02
250	1.42	34.73	5.00	0.21	—	3.95	8.00
300	1.02	34.27	5.70	—	—	—	7.98
400	0.48	34.73	5.50	1.26	—	16.45	7.98
500	0.47	—	5.73	1.50	—	11.18	—

11월(November) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	10	1405	83	3	7	1	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	2	1014	17.6	14.0			B

Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.41	33.48	5.59	0.021	0.14	16.45	8.13
10	17.39	33.52	5.37	0.016	0.12	13.82	8.40
20	17.21	33.52	5.39	0.020	0.07	19.74	8.45
30	17.06	33.47	—	0.027	0.08	17.76	8.48
50	8.28	34.07	4.89	0.027	0.02	46.70	8.40
底	2.66	34.04	5.43	0.043	0.06	44.73	8.27

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	10	1500	196	3	8	3	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	3	1014.3	17.7	15.6			B

Z m	T °C	S ‰	O_2 %	PO_4-P μgat/L	NO_2 N μgat/L	SiO_2-Si μgat/L	pH
0	18.02	33.57	5.54	0.044	0.12	20.39	8.30
10	17.95	33.35	5.46	0.034	0.12	37.49	8.45
20	17.52	33.34	6.11	0.028	0.36	65.78	8.47
30	16.98	33.43	5.26	0.034	0.08	39.47	8.48
50	13.75	34.28	3.76	0.426	0.09	29.60	8.40
75	5.99	34.16	4.35	0.036	0.17	41.44	8.25
100	5.15	34.12	5.06	0.412	0.08	37.49	8.18
125	1.86	34.02	5.77	0.030	0.10	34.20	8.12
150	1.32	34.01	—	0.028	0.14	39.47	8.10
底	0.85	34.01	5.79	0.032	0.17	40.78	8.05

Sr No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	10	1625	630	3	9	3	L

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	3	1014.5	17.6	16.0	Ci	1	B

Z *m*	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH
0	18.34	33.30	5.56	0.027	0.04	9.87	—
10	18.35	33.29	5.43	0.028	0.08	5.92	8.27
20	17.93	34.24	5.32	0.018	0.08	5.92	8.40
30	17.48	33.83	3.74	0.034	0.15	17.76	8.40
50	16.58	34.52	2.59	0.053	0.12	30.26	8.40
75	11.19	34.30	3.28	0.067	0.06	36.18	8.32
100	5.56	34.13	4.76	0.319	0.19	32.89	8.23
125	2.61	34.03	5.89	0.048	0.04	31.57	8.18
150	1.60	34.01	6.64	0.133	0.09	36.84	8.13
200	1.85	34.00	6.02	0.133	0.10	30.92	8.10
250	1.20	34.00	6.22	0.279	0.02	36.18	8.10
300	0.96	34.01	6.09	0.452	0.30	38.15	8.10
400	0.74	34.03	5.89	9.043	0.04	47.36	8.42
500	0.55	34.03	5.80	0.505	0.06	46.05	8.34
600	0.51	34.05	5.58	0.426	0.04	55.92	8.13

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	10	1830	1640			3	L

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	3	1015.1	17.6	15.4	Ci	1	B

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.85	33.73	5.24	0.028	0.22	7.24	8.15
10	20.84	33.74	5.00	0.018	0.04	5.26	8.38
20	20.87	33.74	5.14	0.021	0.77	2.63	8.44
30	20.83	33.77	4.98	0.025	0.15	7.24	8.49
50	19.50	34.01	3.88	0.062	0.23	23.03	8.48
75	18.05	34.45	3.61	0.030	0.27	23.68	8.39
100	19.88	34.55	3.41	0.027	0.06	10.53	8.30
125	10.54	34.29	4.10	0.173	0.02	18.42	8.27
150	2.98	34.06	5.43	0.028	0.07	26.32	8.18
200	2.54	34.04	5.51	0.032	0.10	26.97	8.12
250	1.31	34.03	5.67	0.032	0.09	33.55	8.00
300	1.01	34.02	5.54	0.106	0.10	29.60	7.98
400	0.63	34.04	5.31	0.062	0.07	32.89	8.03
500	0.49	33.96	5.27	0.064	0.02	44.73	8.02
600	0.41	34.04	5.21	0.359	0.07	30.92	8.00

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	10	0525	1320				

Wind		Baro.	Air Temp.		Cloud		Weathet
Direction	Force		Dry	Wet	Type	Amount	

Z *m*	T ℃	S ‰	O_2 %	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH
0	19.26	33.60	4.98	0.027	2.04	23.03	7.97
10	20.25	33.66	5.02	0.016	0.22	23.68	8.25
20	20.32	33.60	5.08	0.018	0.14	17.76	8.20
30	20.28	33.61	5.15	0.021	0.09	19.74	8.37
50	20.51	33.87	4.23	0.018	0.02	4.60	8.40
75	18.71	34.24	3.76	0.018	0.06	13.82	8.30
100	18.00	34.50	3.76	0.023	0.10	14.47	8.29
125	9.38	34.24	4.74	0.025	0.10	24.34	8.20
150	2.81	34.04	4.68	0.028	0.04	25.65	8.12
200	3.10	34.00	5.76	0.021	0.06	23.03	8.05
250	1.20	34.01	6.06	0.027	0.02	24.34	7.69
300	0.82	—	5.47	0.025	0.07	30.92	7.80
400	0.60	34.04	5.54	0.359	—	33.55	7.60
500	0.31	34.05	5.34	0.027	0.04	46.05	7.60
600	0.31	—	5.13	0.532	0.09	52.63	8.10

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	10	0240	1500				

Wind		Baro.	Air Temp		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1015	17.6	14.7			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.31	33.56	5.18	0.023	0.12	19.74	8.30
10	20.35	33.60	5.14	0.018	0.40	1.97	8.62
20	20.37	33.69	5.12	0.018	0.23	3.29	8.61
30	20.31	33.68	5.05	0.020	0.17	1.32	8.61
50	20.26	33.68	5.05	0.025	0.12	2.63	8.60
75	20.33	33.85	3.87	0.036	0.08	2.63	—
100	19.36	34.17	3.65	0.028	0.02	12.49	8.70
125	17.36	34.52	3.45	0.023	2.12	23.03	8.65
150	10.82	34.28	4.07	0.027	0.17	25.65	8.50
200	1.76	34.03	5.87	0.027	0.06	21.70	8.00
250	1.05	34.03	5.80	0.030	0.02	20.39	8.00
300	0.80	34.03	5.80	0.025	0.14	40.78	8.00
400	0.59	34.05	5.51	0.050	0.04	36.84	8.00
500	0.34	34.05	5.32	0.45	0.02	37.49	7.60
600	0.33	34.06	5.05	1.03	0.06	36.18	7.60

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	10	010	1500				

Wind		Baro.	Air Temp.		Cloud		Weather
Direc tion	Force		Dry	Wet	Type	Amount	
SW	2	1015.7	17.4				B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO^3-N μgat/L	SiO_2-Si μgat/L	pH
0	20.52	33.82	5.09	0.02	0.17	3.95	8.20
10	20.49	33.82	5.09	0.02	0.19	4.60	8.38
20	20.75	33.85	5.11	0.02	0.14	1.32	8.40
30	20.68	33.86	5.25	0.02	0.09	1.97	8.10
50	20.79	33.89	5.65	0.02	0.06	6.58	8.29
75	20.87	33.97	4.87	0.02	0.08	3.29	8.15
100	18.28	34.21	4.81	0.03	0.04	5.26	8.15
125	15.62	34.44	4.32	0.03	0.08	38.81	8.18
150	9.11	34.22	4.21	0.03	0.14	53.94	8.13
200	1.75	34.03	—	0.03	0.06	40.13	—
250	1.05	34.02	6.20	0.03	0.08	40.78	8.10
300	0.80	34.15	5.03	0.03	0.04	26.97	8.23
400	0.59	34.06	5.56	0.03	0.02	34.20	8.20
500	0.34	34.06	4.74	0.03	0.05	32.89	7.83
600	0.33	34.56	5.12	0.75	0.04	33.23	7.90

Date		November						
St. No.		04	05	06	07	08	09	10
Day		17	17	17	17	17	16	16
Item	Time / Z(m)	0645	0520	0350	0220	0025	2230	2030
T ℃	0	16.70	18.00	19.10	20.30	19.50	19.80	19.80
	10	16.59	17.90	19.04	20.44	19.41	20.08	20.03
	20	16.43	17.31	18.95	20.39	19.17	19.97	19.90
	30	16.37	17.19	18.97	20.34	18.77	19.96	19.89
	50	15.29	14.02	18.77	20.24	18.24	19.82	19.79
	75	9.27	9.08	18.34	20.17	18.06	19.76	19.72
	100	—	5.64	9.02	19.32	17.33	17.75	17.45
	150	—	—	2.72	2.86	10.19	11.88	19.07
	200	—	—	1.51	1.93	3.08	3.33	3.09
	Botm.	4.70	2.97	0.90	0.85	0.97	1.03	1.07
S ‰	0	33.56	33.07	33.88	33.60	33.77	34.00	34.01
	10	33.55	34.06	33.91	33.98	33.73	33.92	33.88
	20	33.59	34.58	33.91	33.98	33.72	33.91	33.88
	30	33.60	33.64	33.91	33.98	33.68	33.91	33.88
	50	33.74	34.03	33.91	33.98	33.63	33.92	33.88
	75	—	34.10	33.21	33.98	33.61	33.92	33.88
	100	—	34.07	34.22	33.98	33.62	34.41	34.40
	150	—	—	34.04	34.04	34.22	34.27	34.24
	200	—	—	34.01	34.37	34.05	34.05	34.04
	Botm.	33.73	34.08	34.03	34.05	34.03	34.04	34.04
Depth(m)		89	139	—	—	—	—	—
Secchi(m)		—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—
Sea		2	3	3	3	3	3	3
Swell		2	3	3	3	3	3	3
Air Temp. (m)		7.0	7.5	8.5	9.5	9.8	10.3	10.6
Baro. (mm)		762	762	761	763	763	764	765
Wind		SW. 3	SW. 3	SW. 4	SW. 4	SW. 4	SW. 4	SW. 4
Cloud		St8	St8	Ci-Cu10	Ci-Cu10	Ci-Cu10	St6	Ci-St7
Weather		C	C	R	R	R	C	C

103선 해 양 관 측 성 적

Oceanographic Data, Line 103

Date		April							
St. No.		04	05	04	06	07	08	09	10
Day		20	20	28	28	28	28	28	28
Item	Time / Z(m)	0655	0930	0820	1022	1200	1405	1605	1810
T ℃	0	13.0	13.8	—	—	—	—	—	—
	10	13.0	13.7	11.21	13.75	14.20	14.14	14.41	14.61
	20	11.4	13.7	10.71	14.23	15.12	14.41	14.66	14.64
	30	9.2	13.3	10.72	12.62	15.05	14.25	14.60	14.51
	50	7.0	10.7	9.58	4.01	13.42	13.62	14.31	14.26
	75	2.7	5.5	6.18	3.88	13.20	12.60	13.40	13.72
	100	2.4	3.3	—	2.49	10.36	11.23	12.66	13.18
	150	—	—	—	1.51	3.44	6.53	9.97	10.52
	200	—	—	—	1.41	1.49	3.01	7.00	8.15
	Botm.	—	—	3.53	—	—	—	—	—
T ℃	0	—	—	33.89	—	34.21	34.13	34.10	34.17
	10	—	—	33.89	34.04	34.14	34.17	34.14	34.15
	20	—	—	33.89	34.04	34.14	34.16	34.14	34.15
	30	—	—	33.88	34.96	34.12	34.16	34.15	34.16
	50	—	—	33.87	33.70	34.01	34.17	34.16	34.17
	75	—	—	33.77	33.70	34.00	34.12	34.16	34.16
	100	—	—	—	33.62	35.00	34.04	34.13	34.14
	150	—	—	—	33.63	33.70	34.81	34.99	33.99
	200	—	—	—	33.65	33.63	34.70	33.83	33.88
	Botm.	—	—	33.64	—	—	—	—	—
Depth(m)		—	—	96	—	—	—	—	—
Secchi(m)		11.0	8.0	8	7	7	8	9	10
Color		—	—	5	5	5	3	4	3
Sea		3	4	—	—	—	—	—	—
Swell		1	1	—	—	—	—	—	—
Air Temp. (°C)		13.3	15.7	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—
Wind		SW. 3	SSW. 4	—	—	—	—	—	—
Cloud		Ci–Cu9	Ci–Cu7	—	—	—	—	—	—
Weather		C	BC	—	—	—	—	—	—

Date		May						
St. No.		04	05	06	07	08	09	10
Day		17	17	17	17	18	18	18
Item	Time / Z(m)	0543	0625	0740	0906	1050	1300	1450
T ℃	0	13.68	13.70	14.68	15.08	15.98	15.48	15.88
	10	13.14	13.34	14.76	15.70	16.68	16.13	16.47
	20	12.81	13.12	14.07	15.38	16.32	15.82	15.98
	30	10.07	9.17	12.99	14.47	15.84	15.30	15.38
	50	7.11	4.54	12.71	13.97	14.72	15.11	15.10
	75	4.32	2.62	7.43	10.58	14.97	13.61	13.95
	100	—	2.32	3.70	6.81	10.86	12.36	13.12
	150	—	1.68	2.50	4.15	10.09	9.65	10.35
	200	—	—	2.42	1.47	3.36	5.71	6.56
	Botm.	3.55	1.67	1.00	0.98	2.09	1.46	1.51
S ‰	0	34.32	34.35	34.06	34.25	34.54	34.55	34.53
	10	34.35	34.38	34.08	34.28	34.56	34.55	34.56
	20	34.33	34.38	34.25	34.39	34.64	34.56	34.56
	30	34.27	34.27	34.72	34.43	34.67	34.57	34.58
	50	34.14	34.09	34.28	34.34	34.56	34.57	34.58
	75	34.04	34.05	34.25	34.37	34.27	34.55	34.96
	100	—	34.07	34.04	34.22	34.39	34.48	34.54
	150	—	34.08	34.88	34.09	34.19	34.33	34.38
	200	—	—	34.25	34.04	34.05	34.10	34.18
	Botm.	34.03	34.36	34.06	34.05	34.08	34.03	34.07
Depth(m)		—	—	282	—	—	—	—
Secchi(m)		10	11	8	4	13	12	15
Color		—	—	—	—	—	—	—
Sea		3	3	3	4	4	3	3
Swell		2	2	2	2	3	2	2
Air Temp. (°C)		13.5	14.3	15.8	16.0	19.0	21.0	20.8
Baro. (mm)		765	765	764	765	766	765	765
Wind		SE. 4	SE. 4	S. 5	S. 4	S. 7	S. 3	S. 4
Cloud		St. 4	Ci-St. 4	St. 3	Ci-Cu. 4	Ci-St. 4	Ci-St. 7	Ci-St. 8
Weather		B	B	B	B	B	B	C

Date		November						
St. No.		04	05	06	07	08	09	10
Day		16	16	16	16	16	16	16
Item	Time / Z(m)	0815	0900	1020	1150	1340	1530	1725
T ℃	0	16.80	16.80	16.50	19.40	19.60	19.80	19.70
	10	16.45	16.63	16.59	19.91	19.61	19.71	19.73
	20	16.29	16.39	16.49	19.72	19.45	19.60	19.72
	30	16.30	14.87	15.42	19.62	19.35	19.59	19.68
	50	13.65	11.55	13.63	17.77	18.99	19.57	19.50
	75	6.85	6.35	10.40	13.67	18.55	19.51	19.44
	100	—	2.50	3.10	5.66	17.96	19.07	18.55
	150	—	1.24	1.73	3.27	5.37	15.16	14.00
	200	—	—	1.38	2.02	1.89	3.17	3.35
	Botm.	4.00	1.10	0.95	1.93	0.84	0.74	0.99
S ‰	0	33.61	33.86	34.44	33.87	33.73	33.72	33.80
	10	33.56	33.84	34.70	33.88	33.70	33.67	33.78
	20	33.58	33.84	33.68	33.87	33.70	33.67	33.78
	30	33.57	33.83	34.06	33.83	33.69	33.68	33.79
	50	33.85	34.38	34.01	34.43	33.69	33.67	33.78
	75	34.03	34.13	34.05	34.39	33.86	33.68	33.83
	100	—	34.02	34.02	34.13	34.42	34.28	34.30
	150	—	34.00	34.10	34.05	34.11	34.05	34.34
	200	—	—	34.03	34.02	34.03	33.81	34.05
	Botm.	34.01	34.02	33.98	34.03	33.80	33.80	34.03
Depth(m)		93	185	—	—	—	—	—
Secchi(m)		8	11	12	12	9	11	—
Color		—	—	—	—	—	—	—
Sea		2	2	2	3	3	3	3
Swell		2	2	2	2	2	3	3
Air Temp(°C)		7.2	7.5	8.3	9.5	10.5	10.2	10.5
Baro(mm)		769	768	768	768	767	765	765
Wind		SW. 2	SW. 3	SW. 3	SW. 3	SW. 3	SW. 4	SW. 4
Cloud		St5	St6	St4	St8	St7	St8	Ci-St7
Weather		C	C	B	C	C	C	C

104선 해양관측성적

Oceanographic Data, Line 104

Date		April								
St. No.		04	05	06	04	06	07	08	09	10
Day		20	20	20	29	29	29	29	28	28
Item	Time / Z(m)	1415	1630	1415	0750	0525	0355	0145	2340	2130
T ℃	0	11.0	11.0	11.0	—	—	—	—	—	—
	10	10.1	10.0	10.1	12.43	12.59	11.90	12.25	13.16	14.40
	20	9.5	8.7	9.5	12.62	12.50	10.42	12.28	12.77	14.37
	30	8.8	7.0	8.8	12.44	12.04	8.55	9.58	12.62	14.36
	50	5.6	3.7	5.6	8.46	9.28	6.26	4.54	11.65	14.33
	75	4.2	3.3	4.2	4.12	7.45	3.63	3.12	6.34	13.53
	100	3.2	2.9	3.2	3.80	5.03	2.43	1.83	2.67	11.74
	150	—	—	—	—	3.12	1.32	1.14	1.28	9.73
	200	—	—	—	—	1.49	1.26	0.76	9.95	1.53
	Botm.	—	—	—	1.32	—	—	—	—	—
S ‰	0	—	—	—	—	34.02	33.98	34.02	33.95	34.15
	10	—	—	—	—	33.83	34.02	34.02	33.99	34.17
	20	—	—	—	—	33.84	33.95	34.00	33.99	34.17
	30	—	—	—	—	33.80	33.85	33.93	34.00	34.16
	50	—	—	—	—	33.80	33.75	33.75	34.01	34.16
	75	—	—	—	—	33.79	33.66	33.67	—	34.13
	100	—	—	—	—	33.79	33.63	33.66	33.67	34.06
	150	—	—	—	—	33.65	33.64	33.66	33.65	33.74
	200	—	—	—	—	33.65	33.65	33.66	33.64	33.64
	Botm.	—	—	—	—	—	—	—	—	—
Depth(m)		—	—	—	—	—	—	—	—	—
Secchi(m)		—	—	—	7	—	—	—	—	—
Color		—	—	—	5	—	—	—	—	—
Sea		4	5	—	—	—	—	—	—	—
Swell		1	2	—	—	—	—	—	—	—
Air Temp. (°C)		16.5	14.0	16.5	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—	—
Wind		S. 4	SW. 5	S. 4	—	—	—	—	—	—
Cloud		Ci-Cu. 6	Ci-Cu. 7	Ci-Cu. 6	—	—	—	—	—	—
Weather		BC	BC	BC	—	—	—	—	—	—

Date		May						
St. No.		04	05	06	07	08	09	10
Day		14	14	14	14	14	14	14
Item	Time / Z(m)	1900	1730	1600	1400	1205	1000	0810
T ℃	0	13.62	13.92	14.22	14.32	14.32	14.42	14.22
	10	13.66	13.85	13.85	14.16	14.12	14.10	13.44
	20	12.94	13.58	14.22	14.00	13.84	14.18	12.73
	30	12.00	12.95	13.15	12.62	12.97	13.45	11.80
	50	8.17	9.27	10.07	9.10	11.06	11.61	8.87
	75	5.50	6.28	6.11	6.48	10.13	9.67	7.77
	100	—	3.39	4.31	4.31	7.61	7.22	6.36
	150	—	—	4.24	2.82	3.00	3.06	1.57
	200	—	—	2.66	2.58	2.48	2.05	1.13
	Botm.	2.93	2.58	2.96	2.01	1.16	0.93	0.93
S ‰	0	34.41	34.48	34.48	34.47	34.43	34.42	34.42
	10	34.42	34.48	34.50	34.51	34.47	34.47	34.42
	20	34.46	34.47	34.50	34.50	34.46	—	34.33
	30	34.44	34.43	34.43	34.41	34.50	34.42	34.38
	50	34.20	34.26	34.30	34.29	34.40	34.23	34.24
	75	34.03	34.41	34.14	34.18	34.34	34.32	34.12
	100	—	34.05	34.05	34.04	34.21	34.42	34.09
	150	—	—	34.15	34.16	34.04	34.04	34.04
	200	—	—	34.03	34.07	34.00	34.12	34.07
	Botm.	34.01	34.04	34.03	34.43	34.04	34.03	34.03
Depth(m)		97	158	—	—	—	—	—
Secchi(m)		5	6	8	10	10	9	8
Color		—	—	—	—	—	—	—
Sea		3	4	4	4	4	3	3
Swell		2	2	2	2	2	1	2
Air Temp. (°C)		19.0	19.5	20.8	21.2	20.0	18.5	17.0
Baro. (mm)		758	758	759	759	759	758	758
Wind		NE. 5	NE. 4	SE. 3	SE. 2	NE. 2	NE. 2	W. 1
Cloud		Ci-Cu. 5	St. 4	Ci-St. 3	St. 2	St. 2	St. 2	Ci-St. 5
Weather		C	B	B	B	B	B	B

Date		November						
St No.		04	05	06	07	08	09	10
Day		11	11	11	11	11	11	10
Item	Time / z(m)	0820	0720	0550	0420	0255	0100	2300
T ℃	0	17.4	18.0	18.4	18.8	19.0	20.3	20.0
	10	17.17	17.95	18.14	18.57	18.69	20.25	19.80
	20	16.76	17.91	18.03	18.54	18.56	20.20	19.73
	30	13.97	17.51	18.01	18.09	18.53	20.12	19.60
	50	8.05	13.63	14.94	17.17	17.96	20.10	19.10
	75	—	5.09	9.90	17.06	15.65	18.39	18.81
	100	—	4.33	3.92	5.43	9.68	16.35	16.61
	150	—	—	1.80	2.81	2.36	4.84	5.85
	200	—	—	1.80	1.40	1.60	2.23	2.57
	Botm	2.25	2.86	0.65	0.86	0.92	0.85	1.65
S ‰	0	33.41	33.39	33.36	33.47	33.23	33.75	33.74
	10	33.41	33.35	33.33	33.39	33.22	33.75	33.71
	20	33.51	33.35	33.32	33.38	33.21	33.71	33.70
	30	33.72	33.45	33.32	33.27	33.20	33.71	33.69
	50	34.10	34.28	34.24	34.44	34.05	33.68	33.62
	75	—	33.99	34.13	34.33	34.37	34.19	34.07
	100	—	34.01	34.92	34.02	34.03	34.07	34.07
	150	—	—	33.97	34.01	34.99	—	34.07
	200	—	—	34.02	34.01	34.00	34.02	34.00
	Botm.	34.00	34.02	34.02	34.03	34.03	34.05	34.04
Depth(m)		85	155	—	—	—	—	—
Secchi(m)		8	10	—	—	—	—	—
Color		—	—	—	—	—	—	—
Sea		3	3	3	3	3	3	2
Swell		3	3	2	2	2	2	2
Air Temp. (°C)		13.0	14.0	14.5	14.5	15.0	15.0	15.3
Baro. (mm)		763	763	763	763	763	764	763
Wind		N. 4	N. 4	NW. 3	NW. 3	NW. 3	NW. 4	NW. 3
Cloud		St. 2	St. 3	St. 3	St. 3	St. 10	Ci-St. 4	Ci-Cu. 10
Weather		B	B	B	B	R	R	R

105선 해 양 관 측 성 적

Oceanographic Data, Line 105

Date		April.					May			
St. No.		03	04	05	03	05	07	08	09	10
Day		21	21	21	30	30	6	6	6	5
Item	Time / Z(m)	1440	1330	1210	0650	0815	2255	2125	1920	1010
T ℃	0	12.1	11.8	12.1	—	—	—	—	—	—
	10	10.2	10.7	11.2	10.25	10.16	12.82	13.10	13.17	14.21
	20	8.7	9.2	10.0	9.70	9.91	12.57	12.51	12.70	13.10
	30	7.2	6.5	7.7	9.40	9.34	12.58	12.62	12.60	13.29
	50	—	4.8	5.0	5.38	7.41	10.85	10.64	10.70	12.19
	75	—	3.9	3.8	—	4.15	10.16	8.56	7.10	10.53
	100	—	2.8	3.4	—	2.38	8.66	7.64	4.74	6.44
	150	—	—	—	—	1.50	3.72	3.61	2.31	—
	200	—	—	—	—	0.92	1.92	2.00	1.23	—
	Botm.	2.2	—	—	2.54	—	—	—	—	2.51
S ‰	0	—	—	—	33.94	33.95	34.08	34.12	34.21	34.35
	10	—	—	—	33.91	33.95	34.03	34.04	34.05	34.12
	20	—	—	—	33.79	33.92	34.04	34.05	34.02	34.06
	30	—	—	—	33.76	33.90	34.04	34.05	33.84	34.00
	50	—	—	—	33.73	33.83	34.01	34.00	33.81	34.00
	75	—	—	—	—	33.69	33.94	33.88	33.78	33.98
	100	—	—	—	—	33.63	33.87	33.81	33.66	33.78
	150	—	—	—	—	33.58	33.65	33.65	33.66	—
	200	—	—	—	—	33.59	33.64	33.65	33.65	—
	Botm.	—	—	—	33.73	—	—	—	—	33.64
Depth(m)		58	—	—	—	—	—	—	—	—
Secchi(m)		11	11	13	11	11	—	—	—	10
Color		—	—	—	4	4	—	—	—	4
Sea		2	1	3	—	—	—	—	—	—
Swell		1	1	1	—	—	—	—	—	—
Air Temp. (°C)		13.0	13.5	14.0	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—	—
Wind		SE. 2	SE. 1	SE. 3	—	—	—	—	—	—
Cloud		St-Cu. 10	St-Cu. 10	St-Cu. 10	—	—	—	—	—	—
Weather		C	C	C	—	—	—	—	—	—

Date		May							
St No.		03	04	50	06	07	08	09	10
Day		13	13	13	13	13	13	13	13
Item	Time / Z(m)	0700	0830	0930	1120	1315	1505	1655	1845
T ℃	0	11.32	11.62	12.72	14.02	13.72	13.62	13.68	14.82
	10	11.48	11.85	12.10	13.87	13.27	13.19	13.42	14.06
	20	10.56	10.67	11.80	13.19	13.03	12.81	13.14	14.98
	30	8.24	8.48	9.30	12.63	12.32	11.85	12.74	12.14
	50	—	5.75	6.61	11.16	10.58	10.72	11.50	11.13
	75	—	3.28	3.62	10.03	10.03	10.07	10.54	10.06
	100	—	2.66	3.18	8.50	9.66	9.66	9.77	8.19
	150	—	1.97	2.20	4.90	9.14	9.34	9.13	3.79
	200	—	—	1.50	2.46	6.01	7.16	5.92	1.03
	Botm.	6.75	1.88	0.83	0.87	1.83	2.50	2.08	1.05
S ‰	0	34.15	34.18	34.34	34.47	34.39	—	34.42	34.43
	10	34.20	34.22	34.33	34.49	34.42	34.38	34.42	34.48
	20	34.22	34.10	34.24	34.44	34.42	34.42	34.42	34.47
	30	34.12	34.18	34.25	34.39	34.44	34.43	34.40	34.46
	50	—	34.22	34.14	34.39	34.38	34.40	34.42	34.42
	75	—	34.03	34.02	34.33	—	34.37	34.38	34.36
	100	—	34.00	34.33	34.24	34.35	34.35	34.36	34.25
	150	—	34.02	34.04	34.08	34.32	34.34	34.32	34.06
	200	—	—	34.03	34.00	34.10	34.18	34.09	34.02
	Botm.	34.12	34.00	34.05	34.02	34.12	34.02	34.03	34.05
Depth(m)		48	182	—	—	—	—	—	—
Secchi(m)		6	—	9	11	11	12	14	10
Color		—	—	—	—	—	—	—	—
Sea		3	3	3	4	4	4	4	4
Swell		2	2	2	2	2	2	2	2
Air Temp(°C)		14.5	15.4	16.0	18.0	18.0	18.2	17.8	16.5
Baro. (mm)		761	761	761	762	761	761	760	760
Wind		N. 3	N. 3	N. 4	S. 4	NE. 4	NE. 4	NE. 4	NE. 5
Cloud		Ci-Cu. 2	Ci-Cu. 1	Ci-St. 3	St. 2	St. 2	St. 1	St. 1	St. 1
Weather		B	B	B	B	B	B	B	B

Date		November							
St. No.		03	04	05	06	07	08	09	10
Day		10	10	10	10	10	10	10	10
Item	Time / Z(m)	0730	0835	0935	1130	1325	1520	1715	1915
T ℃	0	15.7	16.9	17.1	18.3	18.5	18.3	19.8	19.8
	10	15.16	16.49	16.43	18.03	18.24	17.89	19.65	19.65
	20	14.0	16.85	15.13	17.66	18.10	17.47	19.54	19.54
	30	14.07	13.24	10.76	17.51	18.01	17.44	19.49	19.49
	50	—	6.71	7.01	12.63	17.11	16.32	19.20	19.20
	75	—	3.46	3.97	5.53	10.70	11.17	16.74	16.74
	100	—	2.73	2.17	2.87	5.57	5.83	11.56	11.56
	150	—	1.12	1.29	1.47	2.05	2.38	5.58	5.58
	200	—	—	0.82	1.09	1.30	1.06	2.38	2.38
	Botm.	6.43	0.84	0.50	0.63	0.71	0.55	0.87	0.87
S ‰	0	33.53	33.54	33.50	33.45	33.45	33.49	33.84	33.74
	10	33.51	33.42	33.50	33.41	33.42	33.49	33.82	33.71
	20	33.94	33.91	33.93	33.41	33.43	33.49	33.83	33.70
	30	33.60	33.83	34.02	33.51	33.42	33.48	33.83	33.69
	50	—	33.97	33.93	34.11	33.94	33.90	33.84	33.62
	75	—	33.98	33.99	33.99	33.93	33.78	34.00	34.07
	100	—	33.98	33.99	33.97	33.98	33.90	34.28	34.07
	150	—	34.00	34.00	33.97	—	33.98	34.01	34.07
	200	—	—	34.01	34.02	34.00	33.99	34.02	34.00
	Botm.	—	34.01	—	34.02	34.02	33.99	34.32	34.77
Depth(m)		55	182	—	—	—	—	—	—
Secchi(m)		8	10	10	11	12	9	—	—
Color		—	—	—	—	—	—	—	—
Sea		2	2	2	2	2	3	3	3
Swell		2	2	2	2	2	2	2	2
Air Temp. (°C)		14.0	17.0	17.5	17.8	18.0	17.5	16.5	—
Baro. (mm)		763	763	763	762	762	763	762	762
Wind		S. 2	S. 2	W. 2	N. 2	N. 3	N. 3	N. 3	N. 3
Cloud		Ci. 4	Ci. 4	Ci-Cu. 5	St. 3	St. 5	St. 2	St. 3	Ci-St. 2
Weather		B	B	B	B	B	B	B	B

106선 해양관측성적

Oceanographic Data, Line 106

Date		April			May					
St. No.		03	04	05	02	04	05	06	07	08
Day		27	27	27	4	4	4	4	4	4
Item	Time / Z(m)	1040	1155	1445	0715	0825	1030	1246	1310	1700
T ℃	0	9.6	10.5	11.4	—	—	—	—	—	—
	10	9.4	10.4	10.8	10.00	10.53	13.87	11.84	11.88	12.31
	20	8.4	9.3	10.5	9.82	10.20	14.18	11.81	11.63	12.26
	30	7.1	8.4	8.5	9.34	7.81	12.02	11.28	11.67	11.84
	50	4.5	5.5	6.0	—	5.28	9.80	10.32	10.31	11.79
	75	3.1	4.1	3.9	—	3.70	7.04	9.69	7.88	10.10
	100	2.9	2.7	3.3	—	2.57	4.08	9.47	9.67	9.83
	150	—	—	—	—	1.58	1.57	5.81	9.30	8.92
	200	—	—	—	—	1.05	0.92	3.23	8.90	6.04
	Botm.	—	—	—	6.90	—	—	—	—	—
S ‰	0	—	—	—	33.84	33.90	34.14	33.95	34.03	34.01
	10	—	—	—	33.83	33.88	34.12	34.06	34.03	34.04
	20	—	—	—	33.83	33.88	34.11	34.03	34.03	34.04
	30	—	—	—	33.82	33.88	33.97	34.05	34.02	34.03
	50	—	—	—	—	33.83	33.88	34.06	33.97	34.00
	75	—	—	—	—	33.73	33.81	34.07	33.96	33.98
	100	—	—	—	—	33.65	33.68	34.07	33.94	33.77
	150	—	—	—	—	33.61	33.67	33.66	33.91	33.91
	200	—	—	—	—	33.60	33.66	33.61	33.83	33.69
	Botm.	—	—	—	33.78	—	—	—	—	—
Depth(m)		—	—	—	—	—	—	—	—	—
Secchi(m)		13	13	10	9	14	9	12	13	11
Color		—	—	—	4	4	5	3	4	3
Sea		2	3	3	—	—	—	—	—	—
Swell		1	1	2	—	—	—	—	—	—
Air Temp. (°C)		11.7	12.0	12.5	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—	—
Wind		NNE. 1	NE. 3	NE. 3	—	—	—	—	—	—
Cloud		St-Cu. 10	St-Cu. 8	Aw. 4	—	—	—	—	—	—
Weather		C	BC	BC	—	—	—	—	—	—

Date		May						
St. No.		02	03	04	05	06	07	08
Day		12	12	12	12	12	11	11
Item	Time / Z(m)	1030	1125	1230	1430	1635	2000	1800
T ℃	0	11.28	10.58	11.28	13.28	12.38	13.68	14.28
	10	10.16	11.17	11.53	13.82	11.73	13.10	13.66
	20	10.31	11.05	11.10	13.11	12.55	12.81	13.40
	20	8.58	10.07	9.76	7.40	12.42	11.92	12.75
	50	—	8.14	8.53	7.05	10.83	10.80	11.05
	75	—	5.19	5.72	4.85	9.79	10.16	10.36
	100	—	3.57	3.86	3.35	8.64	9.64	9.81
	150	—	2.66	2.97	2.87	5.71	9.20	9.50
	200	—	1.98	1.97	1.86	1.04	6.42	7.92
	Botm.	5.31	1.10	0.96	1.04	1.02	1.97	2.61
S ‰	0	34.20	34.24	34.25	34.38	34.20	34.42	34.42
	10	34.18	34.24	34.26	34.42	34.18	34.42	34.43
	20	34.24	34.26	34.26	34.41	34.24	34.42	34.43
	30	34.19	34.27	34.25	34.18	34.19	34.43	34.43
	50	—	34.23	34.20	34.13	—	34.42	34.41
	75	—	34.14	34.12	34.07	—	34.38	34.40
	100	—	34.00	34.05	34.07	—	34.33	34.38
	150	—	34.07	34.06	34.03	—	—	34.35
	200	—	34.03	34.00	34.02	34.14	—	34.23
	Botm.	34.14	—	34.04	34.05	—	34.04	34.04
Depth(m)		—	—	—	—	—	—	—
Secchi(m)		4	7	10	9	9	—	10
Color		—	—	—	—	—	—	—
Sea		3	3	4	4	4	4	4
Swell		1	2	2	2	2	3	3
Air Temp (°C)		16.1	17.0	18.0	17.5	16.8	15.6	15.0
Baro. (m)		757	758	757	758	757	758	758
Wind		S. 3	S. 4	S. 6	S. 4	S. 5	SE. 8	S. 5
Cloud		St. 2	St. 1	St. 1	Ci-St. 1	St. 1	St. 7	Ci-St. 5
Weather		B	B	B	B	B	C	C

Date		August				September			
St No.		01	02	04	05	02	03	04	05
Day		10	12	12	12	21	21	21	21
Item	Time / Z(m)	2150	1450	1645	1920	1035	1140	1245	1545
T ℃	0	25.8	25.5	25.5	25.2	18.4	18.8	18.8	19.2
	10	21.6	24.7	20.0	21.5	17.9	17.8	18.7	18.7
	20	14.5	18.0	13.5	14.1	16.7	16.1	15.7	13.8
	30	—	13.0	10.5	11.2	—	11.3	8.9	4.6
	50	8.5	11.2	5.0	6.5	—	5.9	6.4	3.7
	75	7.6	9.8	4.0	4.8	—	3.3	2.7	2.5
	100	5.2	7.5	3.9	4.5	—	—	2.4	2.0
	150	—	—	3.5	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—	—
S ‰	0	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—	—
Depth(m)		—	—	—	—	53	—	—	—
Secchi(m)		—	13	13	—	12	14	13	15
Color		—	—	—	—	—	—	—	—
Sea		—	—	—	—	1	2	2	3
Swell		—	—	1	2	1	1	1	1
Air Temp. (°C)		26.5	29.7	26.5	26.2	20.7	21.7	22.3	20.7
Baro. (mm)		1016	1018	1018	1018	1027	1027	1027	1027
Wind		S. 1	SSE. 3	SSE. 2	SE. 2	SW. 1	SW. 2	SW. 2	S. 3
Cloud		2	3	3	—	St-Cu. 10	St-Cu. 9	St-Cu. 7	St-Cu. 10
Weather		BC	BC	BC	BC	C	C	BC	C

Date		October			November					
St. No.		02	03	04	02	03	04	05	06	07
Day		27	27	27	8	8	7	7	7	7
Item	Time / Z(m)	1330	1450	1614	0120	0010	2305	2105	1900	1700
T	0	16.7	16.7	16.6	15.0	15.0	15.1	14.8	15.00	15.6
	10	16.5	16.2	16.3	14.94	14.99	14.74	14.56	14.88	15.47
	20	15.7	16.0	16.3	14.57	14.93	14.63	14.24	14.59	15.00
	30	—	15.9	16.2	13.16	14.79	14.48	14.05	14.07	14.77
	50	—	15.3	13.0	8.14	10.41	11.98	11.22	7.84	7.62
	75	—	11.3	9.3	—	4.32	5.40	6.05	4.52	5.27
	100	—	5.8	6.6	—	1.99	2.96	3.34	2.47	3.17
℃	150	—	—	—	—	1.55	2.50	1.67	1.37	2.67
	200	—	—	—	—	0.99	1.87	1.22	0.94	1.26
	Botm.	15.7	—	—	3.90	0.62	0.80	0.80	0.64	0.68
S	0	—	—	—	33.38	33.44	33.41	33.54	33.59	33.06
	10	—	—	—	33.36	33.35	33.37	33.50	33.57	33.56
	20	—	—	—	33.34	33.36	33.38	—	33.57	33.55
	30	—	—	—	33.46	33.52	33.41	33.50	33.56	33.56
	50	—	—	—	33.87	33.71	33.65	33.85	33.97	33.14
	75	—	—	—	—	33.97	33.98	34.01	33.58	33.58
	100	—	—	—	—	33.98	33.96	34.00	33.95	34.03
‰	150	—	—	—	—	34.00	33.97	33.98	34.01	34.01
	200	—	—	—	—	34.01	34.01	34.02	—	—
	Botm.	—	—	—	33.97	34.01	34.02	34.02	34.06	34.04
Depth(m)		53	—	—	65	—	—	—	—	—
Secchi(m)		17.5	14.5	—	—	—	—	—	—	11
Color		—	—	—	—	—	—	—	—	—
Sea		2	2	3	2	2	3	3	3	2
Swell		2	2	2	2	2	2	3	3	2
Air Temp. (°C)		17.8	17.5	17.0	12.5	12.5	13.0	13.0	13.5	15.0
Baro. (mm)		1030	1028	1028	765	765	764	764	764	765
Wind		E. 2	E. 2	E. 3	SW. 2	SW. 2	SW. 3	NW. 3	NW. 3	NW. 2
Cloud		St-Cu. 3	St-Cu. 7	St-Cu. 8	St. 3	St. 3	St. 3	St. 3	St. 4	St. 3
Weather		BC	BC	BC	B	B	B	B	B	B

107선 해 양 관 측 성 적

Oceanographic Data, Line 107

Date		May						
St No.		01	02	03	04	05	06	07
Day		11	11	11	11	11	11	11
Item	Time / Z(m)	0620	0700	0825		1115	1305	1500
T ℃	0	10.18	10.28	10.38	10.28	11.18	13.68	14.38
	10	10.56	10.13	10.70	10.41	11.26	13.42	13.56
	20	10.20	10.02	9.86	10.13	11.10	13.24	13.24
	30	10.15	9.58	8.64	9.61	9.10	12.10	12.86
	50	—	7.12	5.80	7.08	5.42	8.73	10.94
	75	—	5.67	4.92	5.11	2.81	5.30	8.86
	100	—	4.55	3.31	3.15	1.75	3.32	5.07
	150	—	2.94	2.36	2.09	0.18	2.12	2.24
	200	—	1.54	1.05	1.38	0.92	1.04	1.29
	300	—	—	0.93	0.83	0.62	0.65	—
	Botm.	6.38	0.90	—	—	—	—	0.78
S ‰	0	34.21	34.20	34.25	34.26	34.23	34.36	34.43
	10	34.24	34.24	34.24	34.22	34.28	34.38	34.45
	20	34.27	34.24	34.30	34.24	34.29	34.39	34.45
	30	34.26	34.27	34.27	34.25	34.27	34.37	34.47
	50	—	34.08	34.19	34.20	34.12	34.22	34.45
	75	—	34.14	34.08	34.09	34.04	34.07	34.33
	100	—	34.22	34.02	34.04	34.04	34.04	34.15
	150	—	34.03	34.00	34.03	34.04	34.03	34.08
	200	—	34.03	34.06	34.04	34.04	34.06	34.02
	300	—	—	34.05	34.06	34.01	34.07	—
	Botm.	34.27	—	—	—	—	—	—
Depth(m)		57	—	—	—	—	—	—
Secchi(m)		5	—	10	11	11	11	9
Color		—	—	—	—	—	—	—
Sea		3	3	3	3	4	4	4
Swell		2	2	2	2	2	2	2
Air Temp. (°C)		13.0	12.5	12.7	13.0	15.2	15.2	15.9
Baro. (mm)		758	768	769	759	759	759	758
Wind		S. 3	S. 3	S. 4	S. 4	S. 4	S. 4	S. 4
Cloud		St. 5	St. 6	Ci-St. 6	St. 3	St. 2	St. 7	St. 8
Weather		B	C	C	B	B	C	C

Date		September				October		
St No.		01	02	03	04	01	02	03
Day		6	14	14	14	26	26	23
Item	Time / Z(m)	1625	1940	2100	2310	0840	0720	1720
T ℃	0	19.5	19.2	18.2	18.5	16.3	16.2	16.5
	10	19.7	18.9	18.0	18.5	16.4	16.2	16.3
	20	19.5	18.5	17.8	17.2	16.3	16.1	15.5
	30	19.0	18.2	17.1	11.3	16.2	16.0	14.5
	50	17.4	12.3	11.0	6.4	—	15.1	12.7
	75	—	10.5	6.1	3.6	—	10.4	10.4
	100	—	—	—	—	—	9.8	6.9
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	Botm.	15.6	—	—	—	15.5	—	—
S ‰	0	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—
Depth(m)		72	—	—	—	74	—	—
Secchi(m)		—	—	—	—	12	12	13
Color		—	—	—	—	—	—	—
Sea		2	2	—	—	3	5	2
Swell		2	2	2	1	1	2	1
Air Temp. (°C)		20	17	1.58	15.3	15.10	15.9	16.9
Baro. (mm)		1026	1029	1030	1031	1034	1033	1038
Wind		N. 2	NW. 2	W. 3	W. 3	NW. 3	NW. 5	W. 2
Cloud		Cu-Nb. 10	Ci. 1	—	—	Cu. 10	Cu-Nb. 10	Cu. 4
Weather		C	B	BC	BC	C	R	BC

November					
01	02	03	04	05	06
6	6	7	7	7	7
0935	1020	0945	1010	1205	1400
15.17	15.50	15.20	15.30	15.10	15.20
15.17	14.88	14.93	14.88	14.87	14.82
15.12	14.84	14.64	14.57	14.67	14.57
14.95	14.75	14.47	14.33	13.96	14.07
—	10.69	9.27	9.24	7.21	7.54
—	3.37	4.13	5.43	5.63	5.86
—	1.77	1.87	2.78	3.50	4.36
—	1.55	1.39	1.68	2.93	3.27
—	0.88	1.00	1.23	1.83	2.20
4.48	0.58	0.55	0.71	0.86	1.31
33.29	33.51	33.28	33.46	33.55	34.02
33.28	33.54	33.37	33.43	33.50	34.48
33.29	33.34	33.37	33.43	33.49	33.47
33.35	33.49	33.39	33.43	33.55	33.57
—	33.82	33.74	33.90	33.99	33.98
—	33.98	33.98	34.00	34.01	34.01
—	33.95	33.97	33.96	34.00	33.98
—	33.37	33.98	33.96	33.95	33.94
—	33.98	34.00	34.00	33.97	33.96
33.94	34.01	34.01	34.03	33.01	34.00
55	—	—	—	—	—
10	12	13	14	12	13
—	—	—	—	—	—
2	3	3	3	3	2
2	3	2	2	2	2
16.5	16.6	13.5	14.5	16.9	15.0
760	759	764	763	764	765
S. 3	S. 5	SW. 3	SW. 3	SW. 3	SW. 2
St. 7	St. 8	Ci-Cu. 2	Ci-Cu. 3	Ci-St. 2	St. 3
C	C	B	B	B	B

남 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS SOUTHERN WATERS

1966

203선 해 양 관 측 성 적

Oceanographic Data, Line 203

Date		March			April		
St No.		01	02	03	01	02	03
Day		28	28	28	2	2	2
Item	Time / Z(m)	0900	1020		0950	0830	0700
T ℃	0	—	—	—	13.50	13.70	13.10
	10	12.28	13.47	14.19	13.29	12.72	12.45
	20	12.47	13.51	—	13.00	12.89	13.01
	30	—	13.50	—	13.22	12.86	13.20
	50	—	—	14.24	12.90	12.92	13.11
	75	—	—	13.93	—	12.88	13.13
	100	—	—	13.46	—	—	12.83
	Botm.	11.27	12.44	—	12.96	12.92	12.72
S ‰	0	—	—	—	34.72	34.70	34.68
	10	—	—	—	34.71	34.71	34.69
	20	—	—	—	34.72	34.71	34.68
	30	—	—	—	34.71	34.71	34.67
	50	—	—	—	34.73	34.72	34.67
	75	—	—	—	—	34.70	34.67
	100	—	—	—	—	—	34.67
	Botm.	—	—	—	34.71	34.74	34.72
Depth(m)		61	108	135	65	100	130
Secchi(m)		5	4	6	8.5	7	7
Color		—	—	—	5	5	5
Sea		3	4	4	1	2	1
Swell		2	3	3	1	1	1
Air Temp. (°C)		11.5	9.8	10.5	13.2	11.3	10.2
Baro. (mm)		766	766	766	1027	1026	1026
Wind		NNE. 5	NNE. 7	NNE. 6	E. 1	N. 2	NNW. 1
Cloud		Ci-Cu. 8	Ci-Cu. 8	Ci-St. 8	Ci	Ci	Ci-St. 6
Weather		C	C	C	B	B	C

Date		May			August		November		
St No.		01	02	03	01	02	01	02	03
Day		20	20	20	26	26	6	6	6
Item	Time / Z(m)	1201	0930	0720	1220	1425	1020	1330	1530
T ℃	0	14.58	15.68	16.88	27.08	28.03	18.78	19.08	20.00
	10	14.01	15.64	16.09	26.02	26.60	18.80	18.74	19.03
	20	13.91	14.01	15.92	23.26	24.88	18.72	18.09	18.83
	30	13.68	13.18	15.10	18.97	18.18	18.36	17.17	18.81
	50	13.70	12.90	15.10	15.06	13.15	17.00	17.00	17.10
	75	—	12.29	14.56	—	—	—	16.61	16.84
	100	—	—	—	—	—	—	—	—
	Botm.	13.79	11.79	14.19	—	—	16.89	16.46	16.57
S ‰	0	33.90	32.95	33.60	—	—	32.42	32.99	33.00
	10	33.92	32.88	33.53	—	—	32.54	33.03	33.03
	20	—	—	33.96	—	—	32.55	33.30	33.70
	30	33.90	33.20	34.12	—	—	32.56	33.47	33.78
	50	33.94	33.88	34.25	—	—	33.77	33.78	33.86
	75	—	33.89	34.33	—	—	—	33.89	33.89
	100	—	—	—	—	—	—	—	—
	Botm.	33.88	—	34.28	—	—	33.74	34.04	33.90
Depth(m)		72	91	105	50	83	72	90	105
Secchi(m)		7.5	12	13	18	16	16	17	16
Color		—	—	—	4	—	—	—	—
Sea		1.5	1.5	1.5	—	2	1.5	1.5	1.5
Swell		2	2	2	—	1	2	2	2
Air Temp. (°C)		19.5	19.2	20.0	28	28.8	17.9	17.6	17.3
Baro. (mm)		—	—	—	757	758	—	—	—
Wind		NE. 7	NE. 7	NE. 7	S	S	NW. 8	NW. 8	NW. 8
Cloud		St. 10	St. 10	St. 10	St	St. 9	Cu. 8	Cu. 8	Cu. 8
Weather		C	C	C	R	BC	BC	BC	BC

204선 해양관측성적

Oceanographic Data, Line 204

Date		March					
St No.		01	02	03	04	05	06
Day		26	26	26	27	27	27
Item	Time / Z(m)	1320	1433	1550	0720	0840	1000
T ℃	0	—	—	—	—	—	—
	10	10.21	10.20	12.63	15.20	14.51	15.30
	20	—	—	—	13.46	15.29	—
	30	—	—	—	15.62	15.58	15.61
	50	—	—	—	15.28	15.08	15.04
	75	—	—	—	—	—	15.15
	100	—	—	—	—	—	—
	Botm.	11.34	12.2	12.1	—	—	14.99
S ‰	0	—	—	—	—	—	—
	10	—	—	—	—	—	—
	20	—	—	—	—	—	—
	30	—	—	—	—	—	—
	50	—	—	—	—	—	—
	75	—	—	—	—	—	—
	100	—	—	—	—	—	—
		—	—	—	—	—	—
Depth(m)		—	33	46	80	88	—
Secchi(m)		8	15	4	8	—	8
Color		—	—	—	—	—	—
Sea		—	—	—	—	—	—
Swell		2	2	1	2	2	3
Air Temp. (°C)		—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—
Wind		3	3	2	3	4	4
Cloud		St. 1	St. 1	St. 1	Ci. 1	Ci. 1	Ci-Cu. 2
Weather		B	B	B	B	B	B

Date		April					
St No.		01	02	03	04	05	06
Day		2	2	2	2	2	2
Item	Time / Z(m)	2145	2020	1850	1700	1530	1405
T ℃	0	12.17	—	—	—	—	—
	10	11.49	10.61	13.59	14.08	15.31	14.78
	20	11.31	10.56	14.81	13.82	15.22	14.95
	30	—	—	11.59	14.00	15.14	14.86
	50	—	—	—	13.67	15.16	14.93
	75	—	—	—	13.14	15.11	14.89
	100	—	—	—	—	—	15.05
	Botm.	11.25	10.58	11.30	13.13	15.60	14.91
S ‰	0	34.70	34.47	34.76	34.81	35.03	34.97
	10	34.70	34.42	34.76	34.81	35.03	34.97
	20	34.68	34.43	34.71	34.75	35.01	34.98
	30	34.68	—	34.58	34.74	35.00	34.98
	50	—	—	—	34.75	34.98	34.98
	75	—	—	—	34.72	—	34.98
	100	—	—	—	—	—	34.96
	Botm.	34.66	34.42	34.51	34.71	34.98	34.97
Depth(m)		40	35	58	84	96	120
Secchi(m)		—	—	—	7	7	8
Color		—	—	—	5	5	5
Sea		—	—	—	—	—	—
Swell		—	1	1	1	1	1
Air Temp. (°C)		—	—	—	—	—	—
Baro. (mm)		1023	1023	1023	1023	1024	1024
Wind		S. 1	S. 1	S. 2	S. 3	S. 4	S. 3
Cloud		Ci-St	Ci-St	Ci-St	Ci-St	Ci-St	Ci
Weather		C	C	C	C	C	C

May						August		
01	02	03	04	05	06	04	05	06
15	15	15	16	16	16	Aug 26	26	26
1240	1510	1030	0735	1000	1245	0410	0550	0723
17.68	17.18	17.68	14.98	16.58	17.28	26.00	26.73	27.48
15.66	16.11	15.72	14.50	16.09	16.45	25.90	26.61	27.73
15.23	15.08	15.00	14.78	16.07	16.32	24.78	23.49	24.61
—	—	14.68	14.72	15.98	16.21	20.46	17.76	20.19
—	—	—	14.63	15.81	15.79	15.53	14.64	17.35
—	—	—	14.51	—	15.00	13.95	14.24	17.44
—	—	—	—	—	14.91	—	—	—
14.71	14.96	14.26	14.60	15.12	14.92	—	14.17	14.28
33.72	33.96	34.10	33.90	34.28	34.09	—	—	—
34.15	34.19	34.07	33.90	34.24	33.79	—	—	—
34.00	34.08	34.09	33.93	34.26	34.26	—	—	—
—	—	34.15	34.28	34.26	34.27	—	—	—
—	—	—	34.40	34.27	34.30	—	—	—
—	—	—	34.40	34.36	34.30	—	—	—
—	—	—	—	—	34.33	—	—	—
33.99	34.08	34.24	34.39	34.49	34.30	—	—	—
32	36	43	85	98	132	92	100	110
4	7	8	9	11	9	—	14	17
—	—	—	—	—	—	—	4	4
2	2	2	1.5	2	1.5	2	2	2
3	3	3	2	3	2	1	1	1
18.2	18.9	18.5	16.0	17.6	19.0	25.9	26.8	27.0
—	—	—	—	—	—	748	758	—
NW. 7	NW. 8	W. 8	NW. 7	NW. 7	NW. 7	S. 2	S. 2	S
Ci. 2	Ci. 1	Ci. 2	Ci. 2	Ci	Ci. 2	St	St	St
C	B	B	B	B	B	R	R	R

Date		November					
St No.		01	02	03	04	05	06
Day		11	11	11	11	11	11
Item	Time / Z(m)	2120	1910	1650	1440	1230	1020
T °C	0	17.18	19.18	19.38	19.18	19.68	20.98
	10	17.44	19.24	18.85	18.15	18.94	20.93
	20	16.94	18.52	19.59	19.73	20.15	20.35
	30	—	18.32	20.22	19.38	20.89	20.73
	50	—	—	—	20.26	20.53	20.44
	75	—	—	—	19.13	20.44	20.45
	100	—	—	—	—	—	18.07
	Botm.	17.18	17.33	19.62	—	18.28	17.42
S ‰	0	33.05	33.07	32.88	32.72	33.04	34.05
	10	33.05	33.11	34.14	33.00	33.05	32.79
	20	33.07	33.34	32.94	33.03	33.98	33.94
	30	33.50	—	34.16	34.09	34.03	33.91
	50	—	—	—	34.39	34.68	33.90
	75	—	—	—	—	—	33.86
	100	—	—	—	—	—	34.11
	Botm.	33.65	33.04	33.62	34.48	34.56	34.49
Depth(m)		35	40	50	90	—	130
Secchi(m)		—	12	14	18	14	—
Color		—	—	—	—	—	—
Sea		2	2	2	2	2	2
Swell		3	3	3	3	3	3
Air Temp. (°C)		14.5	16.2	16.8	16.5	—	15.5
Baro. (mm)		—	—	—	—	—	—
Wind		NE. 10	NE. 10	NE. 10	NE. 10	NE. 10	NE. 10
Cloud		Cu. 5	Cu. 5	Cu. 5	Cu. 5	Cu. 15	Cu. 8
Weather		BC	BC	BC	BC	BC	BC

205선 해 양 관 측 성 적

Oceanographic Data, Line 205

Date		March					May				
St No.		01	02	03	04	05	01	02	03	04	05
Day		26	26	26	25	25	15	15	15	15	15
Item	Time / Z(m)	0700	0815	0930	2215	1800	1040	0830	0640	0350	0110
T ℃	0	—	—	—	—	—	16.48	16.28	17.68	17.08	16.38
	10	11.30	—	10.30	12.89	12.74	15.19	15.76	15.82	14.40	15.60
	20	11.89	10.49	—	—	15.31	15.09	15.34	15.15	15.25	15.20
	30	—	11.29	—	—	—	14.83	13.58	14.60	14.47	14.25
	50	—	—	11.02	12.47	—	—	14.96	14.65	14.43	13.94
	75	—	—	—	—	14.30	—	—	14.33	14.08	—
	100	—	—	—	—	—	—	—	—	—	—
	Botm.	11.36	—	10.52	11.47	—	14.55	14.32	14.86	14.14	13.68
S ‰	0	—	—	—	—	—	33.67	34.00	—	34.03	34.45
	10	—	—	—	—	—	34.10	34.07	33.97	34.27	34.36
	20	—	—	—	—	—	34.02	34.11	—	—	34.23
	30	—	—	—	—	—	34.16	34.24	34.33	34.25	34.23
	50	—	—	—	—	—	—	34.24	34.13	34.26	34.30
	75	—	—	—	—	—	—	—	33.85	34.30	34.30
	100	—	—	—	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	34.22	—	34.27	34.28	34.30
Depth(m)		55	50	77	82	103	50	60	85	90	95
Secchi:(m)		6	6	7	—	7	6	9	8	—	—
Color		—	—	—	—	—	—	—	—	—	—
Sea		—	—	—	—	—	2	2	2	2	1
Swell		2	3	3	3	3	2	2	3	2	1
Air Temp. (°C)		—	—	—	—	—	17.0	16.4	16.5	17.0	17.1
Baro. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		NW. 3	NW. 4	NW. 4	N. 4	N. 3	NW. 7	NW. 7	NW. 8	W. 8	SW. 6
Cloud		Ci-Cu. 3	Ci-Cu. 3	Ci-St. 4	St. 4	St. 4	Ci. 2	Ci. 2	Ci. 10	—	—
Weather		B	B	B	B	B	B	B	C	R	R

Date		June					
St No.		01	02	03	04	05	06
Day		22	22	22	23	23	23
Item	Time / Z(m)	0955	1100	1212	1400	1618	1845
T ℃	0	21.42	20.40	19.80	21.68	22.22	23.12
	10	20.99	19.58	19.41	20.85	21.69	22.60
	20	19.59	18.26	17.05	19.78	21.17	22.01
	30	18.16	16.45	15.34	18.48	21.12	21.80
	50	—	—	14.25	15.17	16.52	21.32
	75	—	—	—	14.32	14.80	17.12
	100	—	—	—	—	14.51	16.22
	Botm.	15.94	13.83	14.45	14.32	14.36	15.23
S ‰	0	—	—	—	—	—	—
	10	—	—	—	—	—	—
	20	—	—	—	—	—	—
	30	—	—	—	—	—	—
	50	—	—	—	—	—	—
	75	—	—	—	—	—	—
	100	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—
Depth(m)		55	48	70	96	117	120
Secchi(m)		9	10	10	8	13	16
Color		—	4	3	3	3	3
Sea		3	3	4	4	4	3
Swell		2	3	2	2	2	2
Air Temp. (°C)		22.4	21.7	21.3	22.4	22.2	23
Baro. (mm)		1014	1011	1013	1016	1016	1016
Wind		S. 3	S. 3	S. 4	S. 4	SW. 4	S. 3
Cloud		—	—	—	—	—	—
Weather		C	C	C	C	C	C

August						November				
01	02	03	04	05	06	01	02	03	04	05
25	25	25	25	25	25	12	12	12	12	12
1140	1330	1435	1633	1824	2030	0600	0840	1120	1400	1640
25.97	26.7	25.71	27.1	27.62	28.19	18.18	18.88	18.89	19.28	19.68
25.76	26.7	25.66	27.1	27.63	28.19	18.26	18.02	18.13	18.72	19.42
25.20	26.5	25.89	27.1	28.01	28.14	18.09	17.84	18.02	19.01	19.01
24.79	26.0	22.30	27.0	27.42	28.09	16.78	16.99	17.56	18.09	18.53
22.68	21.5	16.31	16.5	22.27	22.99	—	16.83	16.91	18.01	18.18
—	20.7	14.90	14.5	19.30	19.39	—	—	16.43	17.16	17.81
—	18.3	—	15.5	16.35	18.47	—	—	—	—	-
—	—	—	—	15.64	16.40	17.71	16.51	16.39	17.11	17.71
—	—	—	—	—	—	33.05	33.24	32.84	33.24	33.04
—	—	—	—	—	—	33.05	33.20	33.20	34.39	32.94
—	—	—	—	—	—	33.07	33.27	33.23	32.86	32.95
—	—	—	—	—	—	33.50	33.32	32.86	33.29	33.41
—	—	—	—	—	—	—	33.41	33.30	33.78	33.55
—	—	—	—	—	—	—	—	33.89	34.40	32.01
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	33.65	33.93	34.28	34.40	34.26
62	—	80	100	126	130	52	65	85	93	97
11	—	15	17	16	—	11	12	18	18	19
4	—	4	4	4	—	—	—	—	—	—
3	—	3	3	3	2	2	2	2	2	2
2	—	2	2	2	2	3	1	3	3	3
27.0	—	26.8	27.2	26.8	26.2	16.3	16.5	16.9	17.0	17.8
748	—	—	—	—	—	—	—	—	—	—
S. 3	S. 3	S. 3	S. 3	S. 3	S. 2	NE. 10	NE. 10	NE. 10	NE. 10	NE. 10
St	—	St	St	St	St	Cu. 6	Cu. 6	Cu. 8	Cu. 8	Cu. 8
C	—	BC	BC	BC	BC	BC	BC	BC	BC	BC

206선 해 양 관 측 성 적

Oceanoraphic Data, Line 206

Date		March				May				
St No.		01	02	03	04	01	02	03	04	05
Day		25	25	25	25	14	14	14	14	14
Item	Time / Z(m)	0830	0940	1105	1225	1030	1230	1430	1640	1840
T ℃	0	12.50	—	—	—	16.68	17.98	20.70	20.70	17.18
	10	11.62	—	11.94	12.14	14.67	15.63	16.27	16.46	15.89
	20	12.45	12.83	14.06	12.43	14.45	15.41	15.85	15.95	15.80
	30	—	11.67	13.64	13.64	14.39	15.28	15.82	15.50	15.58
	50	—	—	13.35	—	14.31	14.47	15.78	15.49	15.57
	75	—	—	—	—	—	—	14.35	14.64	14.73
	100	—	—	—	12.44	—	—	—	14.26	14.30
	Botm.	12.56	12.09	—	12.05	14.33	15.11	13.98	13.87	14.25
S ‰	0	—	—	—	—	—	34.34	—	34.54	34.47
	10	—	—	—	—	—	34.22	34.42	34.40	34.44
	20	—	—	—	—	—	34.25	34.42	34.39	34.47
	30	—	—	—	—	34.22	—	—	34.49	—
	50	—	—	—	—	34.26	34.40	34.57	34.58	34.56
	75	—	—	—	—	—	—	34.45	—	34.47
	100	—	—	—	—	—	—	—	34.39	34.46
	Botm.	—	—	—	—	34.27	34.37	34.39	34.37	34.38
Depth(m)		58	73	90	129	65	76	92	130	129
Secchi(m)		5	5	10	8	8	9	—	11	8
Color		—	—	—	—	—	—	—	—	—
Sea		—	—	—	—	1	1	1	1	1
Swell		2	2	3	3	1	1	1	1	1
Air Temp. (°C)		—	—	—	—	19.0	21.6	22	23.6	20.5
Baro. (mm)		—	—	—	—	—	—	—	—	—
Wind		N. 2	N. 3	N. 3	N. 3	S. 5	S. 5	S. 8	SW. 8	—
Cloud		Ci-St. 5	Ci-St. 6	St. 4	St. 4	Ci. 4	Ci. 4	Ci. 4	Ci. 2	Ci. 2
Weather		B	B	B	B	BC	BC	BC	BC	B

June				
01	02	03	04	05
21	21	21	21	21
1135	0755	1225	1345	1600
17.72	19.52	20.82	21.38	21.30
17.86	19.28	20.41	20.21	19.84
17.14	19.18	19.58	19.38	19.08
16.59	18.09	17.25	18.65	18.79
—	14.44	14.93	17.96	17.15
—	—	14.72	15.89	15.74
—	—	—	14.95	14.95
15.86	14.09	14.75	14.74	14.85
—	—	—	—	—
—	—	—	—	—
- -	—	—	-	-
- -	—	—	—	—
—	- -	-	-	-
- -	-	-	- -	-
—	—		-	- -
- -	—	- -		—
55	79	104	140	130
4	13	13	20	7
—	3	3	3	3
2	2	2	2	3
1	1	1	1	2
19.7	21.4	22.2	22.4	22.1
1015	1015	1015	1015	1015
SW. 2	SW. 2	SW. 2	SW. 2	W. 2
—	—	—	—	—
C	C	C	C	C

206선 해 양 관 측 성 적

Oceanographic Data, Line

11월(November) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	06	0845	60	3	7	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Derection	Force		Dry	Wet	Type	Amount	
SSE	1	1016	16.3	16.1	Cu-Nb	10	R

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.76	19.66	5.06	0.036	0.07	17.76	7.95
10	17.82	19.59	5.04	0.030	0.64	15.13	8.01
20	17.81	17.82	5.07	0.080	1.17	13.82	—
30	17.70	17.71	5.70	0.027	0.02	20.39	8.06
50	17.20	17.29	5.67	0.080	0.88	20.39	8.10
底	16.79	17.12	3.64	0.036	0.05	17.10	8.10

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	6	1000	80			2	W

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1016	15.8	15.7	Cu-Nb	10	R

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	19.66	33.21	5.26	0.016	0.05	5.92	8.13
10	19.59	33.37		0.027	0.07	3.29	8.25
20	17.82	33.13	5.02	0.034	0.04	3.29	8.30
30	17.71	33.16	6.76	0.018	0.04	5.26	8.25
50	17.29	34.29	3.40	0.019	—	10.53	8.16
底	17.12	34.32	3.32	0.027	0.10	25.65	8.18

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	6	1140	108	3	13	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	1	1016	15.8	15.8	Cu-Nb	10	R

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.39	33.30	5.14	0.009	0.07	3.95	8.20
10	20.71	33.58	5.00	0.021		2.63	8.23
20	20.81	33.64	5.00	0.013	0.05	3.95	7.90
30	20.82	33.64	4.98	0.027	0.14	9.87	8.02
50	19.41	33.55	4.10	0.027	0.04	10.53	7.93
75	17.50	33.60	4.30	0.025	0.05	11.84	7.88
底	17.20	33.44	3.65	0.036	0.04	22.36	7.91

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	6	1310	145	3	12	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	1	1015	17.2	17.6	Cu-Nb	10	R

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.06	33.62	4.98	0.037	0.04	7.24	8.25
10	21.04	33.66	5.06	0.011	0.02	1.97	8.28
20	21.12	33.71	5.15	0.007	0.04	0.66	8.23
30	21.06	33.70	4.87	0.007	0.07	3.95	8.30
50	21.02	33.68	4.84	0.025	0.10	2.63	8.40
75	21.32	34.60	4.64	0.036	0.09	1.97	8.40
100	18.46	34.43	4.55	0.018	0.09	13.82	8.32
125	16.39	34.54	4.76	0.025	0.06	19.74	8.25
底	7.87	34.21	4.73		1.57	63.80	8.08

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	6	1435	142	3	17	2	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	2	1014	18.2	18.2	Cu	9	C

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	22.85	34.34	5.15	0.011	0.09	3.29	8.13
10	23.05	34.40	4.79	0.013	0.04	8.55	8.30
20	23.04	34.40	4.84	0.009	0.04	5.92	8.51
30	23.03	34.41	4.77	0.014	0.04	7.24	8.58
50	23.03	34.40	3.45	0.009	0.02	9.87	8.50
75	23.02		3.60	0.011	0.02	12·49	8.49
100	17.21	34.57	4.88	0.062	0.08	15.13	8.40
底	17.06	34.57	4.86	0.059		19.74	8.32

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	6	1640	165				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	22.00	33.92	4.98	0.020	0.06	0.66	8.32
10	22.09	34.00	5.06	0.014	0.04	1.97	8.38
20	22.14	34.05	4.82	0.018	0.04	0.66	8.42
30	22.12	33.86	4.68	0.108	0.04	2.63	8.43
50	22.10	34.06	4.02	0.018	0.08	2.63	8.45
75	17.40	33.61	3.52	0.025	0.64	13.82	8.40
100	17.37	34.47	4.86	0.023	0.08	24.34	8.22
125	16.32	34.56	5.39	0.027	0.07	24.34	8.20
底	6.48	34.19	5.46	0.426		26.32	8.18

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	6	1825	122				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	

Z *m*	T ℃	S ‰	O_2 %	OP_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.94	32.81	5.56	0.018	0.05	5.26	8.20
10	18.60	33.22	4.78	0.018	0.06	4.60	8.33
20	18.00	33.25	3.43	0.027	0.04	7.24	8.40
30	17.62		3.54	0.021	0.10	9.20	8.40
50	17.95	34.39	3.51	0.021	0.07	13.16	8.35
75	17.28	34.55	4.12	0.018	0.04	15.13	8.20
100	16.51	34.55	5.54	0.025	0.02	10.53	8.23
底	10.04	34.29	5.54	0.021	0.07	17.76	8.20

207선 해 양 관 측 성 적

Oceanographic Data, Line 207

Date		April	
St No.		01	02
Day		21	21
Item	Time / Z(m)	0815	0915
T ℃	0	—	—
	10	15.05	15.02
	20	14.83	15.04
	30	14.30	15.04
	50	13.58	14.80
	75	—	13.59
	100	—	—
	Botm.	13.56	13.49
S ‰	0	33.35	34.19
	10	34.15	34.23
	20	34.17	34.36
	30	34.33	34.23
	50	34.37	34.17
	75	—	34.04
	100	—	—
	Botm.	34.37	33.83
Depth(m)		82	99
Secchi(m)		6	19
Color			
Sea			
Swell			
Air Temp. (°C)			
Baro. (mm)			
Wind			
Cloud			
Weather			

5월(May)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	12	1301	86	2	9	3	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	3	1013	16.2	13.8			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	13.35	34.24	6.31	0.15	—	3.95	8.59
10	14.40	34.60	6.23	0.13	—	—	8.56
20	14.76	34.60	6.10	0.19	—	0.66	—
30	15.29	34.53	5.94	0.20	—	4.60	8.52
50	15.28	34.53	5.90	—	—	3.29	8.55
底	15.40	34.50	5.86	0.20	—	—	8.52

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	12	1400	132	2	9	3	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	3	1012	16.9	14.8			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.20	34.56	5.86	0.17	—	2.63	8.57
10	16.07	34.67	5.79	0.20	—	1.32	8.59
20	15.81	34.70	5.77	—	—	—	8.60
30	15.39	34.74	5.75	0.13	—	—	8.60
50	15.31	34.65	5.73	—	—	—	8.40
75	13.78	34.60	5.59	0.19	—	4.60	8.49
100	13.71	34.56	5.54	0.17	—	7.24	8.56
底	13.53	34.56	5.00	—	—	—	8.50

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	12	15.20	123	3	9	2	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	3	1012	16.4	14.8	Ci	1	B

Z m	T ℃	S ‰	O_2 %L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.73	—	6.04	—	—	4.60	8.53
10	16.74	34.64	5.81	0.20	—	2.63	8.60
20	15.98	34.73	5.59	0.12	—	1.97	8.59
30	15.48	34.74	5.13	0.12	—	0.66	8.52
50	15.27	34.80	4.96	0.11	—	4.60	8.53
75	14.68	34.80	5.46	0.07	—	1.97	8.58
100	14.31	34.74	5.42	0.07	—	3.29	8.58
底	11.38	34.72	5.32	0.03	—	3.95	8.20

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	12	1635	225	3	9	1	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	2	1011	17.2	15.3	Ci	2	B

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.01	34.67	5.54	0.01	—	5.26	8.38
10	16.79	34.76	5.50	0.04	—	3.95	8.40
20	16.79	34.73	5.46	0.08	—	—	8.32
30	16.69	34.70	5.42	0.09	—	1.32	8.25
50	15.56	34.70	4.88	0.29	—	0.66	8.17
75	15.49	34.74	4.44	0.29	—	4.60	8.16
100	15.35	34.69	4.73	0.20	—	7.89	8.02
125	14.96	34.69	5.00	0.07	—	5.26	8.13
150	11.69	-	5.30	0.07	—	6.58	8.30
200	9.84	34.44	5.34	0.15	—	4.60	8.30
底	9.54	34.45	5.34	0.15	—	1.97	8.27

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	12	1725	161	3	10	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	1	1011	16.0	15.4	Ci	1	B

Z m	T C	S ‰	O_2 %L	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH
0	17.20	34.65	5.54	0.09	—	3.29	8.30
10	16.79	34.76	5.50	0.08	—	3.95	8.30
20	16.71	34.76	5.38	0.03	—	1.97	8.29
30	16.52	34.74	5.38	0.20	—	1.97	8.22
50	16.12	34.73	5.19	0.15	—	1.32	8.25
75	15.41	34.69	4.86	0.27	—	0.66	8.13
100	15.34	34.70	4.69	0.24	—	1.97	8.21
125	15.28	34.72	4.65	0.25	—	3.29	8.32
BC	14.79	34.60	4.65	—	—	3.95	8.32

Date		June							
St No.		01	02	03	04	05	07	08	09
Day		14	14	14	14	14	14	14	14
Item	Time / Z(m)	0825	0935	1025	1200	1240	1425	1540	1645
T °C	0	17.52	21.02	20.32	20.90	20.10	21.50	20.52	20.32
	10	18.20	18.25	19.01	19.69	19.89	19.70	19.90	19.25
	20	18.10	17.99	18.80	19.35	19.30	19.95	19.39	18.84
	30	18.00	17.70	16.63	18.69	18.40	18.95	19.38	19.30
	50	15.15	14.80	14.51	10.65	15.95	18.30	18.70	18.30
	75	—	14.35	14.20	15.41	16.00	—	17.90	17.38
	100	—	—	—	14.35	15.35	—	—	—
	125	—	—	—	13.60	15.30	—	—	—
	150	—	—	—	6.45	—	—	—	—
	Botm.	13.70	14.20	14.10	5.95	15.15	17.8	16.88	16.60
S ‰	0	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—
	125	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—	—
Depth(m)		76	91	106	215	164	76	100	100
Secchi(m)		10	21	20	16	17	20	18	20
Color		4	3	3	3	2	2	2	2
Sea		1	1	1	1	1	2	3	3
Swell		1	1	1	1	1	1	1	1
Air Temp(°C)		23.3	23.7	22.4	20.0	21.1	21.7	21.2	21.0
Baro.(mm)		1017	1016	1017	1017	1017	1016	1014	1014
Wind				SE	SE	SE	S	S	S10
Weather		C	C	C	B	B	C		C

11월 (November)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	7	12.25	88	3	13	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	1	1018	14.8	14.3			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.62	32.83	4.78	0.02	0.09	5.26	—
10	17.75	32.91	3.95	0.03	0.04	10.53	8.28
20	17.45	33.41	3.71	0.04	—	20.39	8.20
30	16.58	34.04	3.88	0.12	—	17.10	8.20
50	13.41	34.35	5.89	0.04	00.8	36.18	8.18
底	11.46	34.33	4.96	0.18	0.15	30.26	8.12

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	7	14.10	106	3	12	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
W	1	1017	16.4	15.4			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-S μgat/L	pH
0	18.17	33.28	3.65	0.02	0.02	3.95	8.20
10	17.83	33.46	3.54	0.05	0.08	9.87	8.25
20	17.84	—	3.52	0.06	0.04	13.82	8.29
30	17.96	33.97	3.52	0.04	0.03	15.13	8.28
50	16.69	34.47	4.10	0.04	0.15	23.68	8.20
75	15.16	34.56	—	0.03	0.23	26.32	8.25
底	10.40	34.50	—	0.17	0.29	26.97	8.10

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	7	1510	140	3	13		S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
	1017	1508	1404	B			

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	19.62	33.41	5.36	0.02	0.10	2.63	8.18
10	19.83	33.24	5.51	0.03	0.07	1.32	8.40
20	18.25	33.14	5.54	0.02	0.02	0.66	8.40
30	18.25	33.14	5.54	0.04	0.06	5.92	8.42
50	17.92	33.49	4.59	0.03	0.06	11.18	8.40
75	17.40	34.50	3.54	0.05	0.09	13.82	8.20
100	16.54	34.56	3.45	0.02	0.08	20.39	8.20
125	9.22	34.27	4.32	0.03	0.10	21.05	8.12
底	8.41	34.23	4.32	0.03	0.09	32.89	8.10

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	7	1620	230	3	13		M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
		1017	15.2	12.9			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	22.02	34.05	—	0.02	0.04	5.26	—
10	21.99	34.04	4.89	0.02	0.02	3.95	8.20
20	22.06	34.12	4.76	0.02	0.06	3.29	8.30
30	22.15	34.08	4.85	0.02	0.14	7.24	8.36
50	21.71	33.97	4.87	0.02	0.19	4.60	8.43
75	17.84	33.81	3.79	0.04	0.14	13.82	8.35
100	17.55	34.41	3.41	0.04	0.15	71.7	8.20
125	16.36	34.52	3.45	0.08	0.02	23.68	8.28
150	17.08	34.52	3.55	0.05	0.10	12.49	8.29
200	6.26	34.18	3.52	0.12	0.08	37.49	8.10
底	5.96	34.15	3.34	0.03	0.05	29.60	8.08

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	7	1745	160				S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
		1101.8	15.1	13.4			B

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.12	33.77	4.89	0.01	0.12	3.95	8.32
10	21.20	33.79	4.32	0.02	0.06	3.95	8.40
20	21.23	33.80	4.96	0.02	0.04	3.95	8.42
30	21.27	33.83	4.89	0.02	0.10	5.26	8.38
50	21.25	33.85	4.87	0.02	0.08	4.60	8.38
75	20.02	33.80	4.82	0.02	0.09	7.89	8.40
100	18.03	34.25	3.95	0.05	0.02	17.76	8.33
125	17.31	34.54	3.69	0.06	0.02	26.97	8.32
底	5.97	34.16	—	—	—	—	8.20

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	7	2005	93				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
		1019	15.2	14.6			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.88	33.90	5.24	0.04	0.02	3.95	8.38
10	20.96	33.91	5.09	0	0.09	7.24	8.50
20	20.92	33.90	5.16	0.02	0.04	2.63	8.51
30	20.94	33.91	5.20	0.02	0.06	3.95	8.42
50	20.77	33.90	5.06	0.02	0.02	7.89	8.46
75	20.08	34.10	4.90	0.02	1.67	36.18	8.50
底	19.82	34.14	3.90	0.02	0.10	15.78	8.42

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	7	2115	110				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	1	1019	160	1408			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.83	33.91	4.87	0.00	0.19	7.24	8.50
10	20.89	33.92	5.04	0.02	0.15	17.76	8.58
20	20.85	33.90	5.17	0.00	0.08	9.20	8.59
30	20.82	33.91	5.10	0.02	0.06	4.60	8.50
50	20.84	33.90	5.02	0.02	0.04	3.29	8.50
75	19.51	34.17	3.84	0.02	0.08	10.53	8.43
底	19.92	34.48	3.42	0.02	0.02	21.05	8.37

St No.	Date	Time	Depth	Water Color	Water Trans	Wave	Swell
09	7	2310	122				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
		1019	16.2	15.0			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.72	33.89	5.17	0.02	0.14	6.58	8.40
10	20.75	33.87	5.02	0.04	0.06	10.53	8.46
20	20.74	33.88	5.09	0.02	0.08	11.18	—
30	20.72	33.85	4.97	0.02	0.08	9.87	8.05
50	20.62	34.03	4.35	0.02	0.04	5.26	8.30
75	19.75	34.45	4.01	0.03	0.08	17.10	8.30
100	18.44	—	3.44	0.03	0.02	17.10	8.18
底	18.46	34.45	3.68	0.03	0.09	17.76	8.10

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	8	040	112				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
N	1	1019	1508	15.0			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.75	34.13	5.70	0.02	—	10.53	8.10
10	21.82	34.13	5.13	0.02	0.04	6.58	8.19
20	21.82	34.13	—	0.03	0.08	7.24	8.30
30	21.80	34.14	4.96	0.02	0.09	23.68	8.42
50	21.83	34.13	4.98	0.02	0.02	20.37	8.42
75	21.59	34.13	4.90	0.03	—	17.10	8.40
100	19.26	—	3.76	0.03	0.35	23.03	8.30
底	19.20	34.48	3.68	0.03	—	26.97	8.30

208선 해 양 관 측 성 적

Oceanographic Data, Line 208

Date		April					
St No.		01	02	03	01	02	03
Day		14		13	21	21	21
Item	time / Z(m)	1115		1445	1705	1500	1345
T ℃	0	14.0	—	16.3	—	—	—
	10	13.7	—	15.6	13.33	15.61	15.01
	20	13.5	—	15.4	13.11	15.50	14.91
	30	13.1	—	15.3	13.10	15.50	14.82
	50	—	—	14.9	11.90	14.81	14.61
	75	—	—	13.8	—	14.50	14.50
	100	—	—	13.2	—	10.98	14.49
	Botm.	12.3	—	—	—	3.48	10.75
S ‰	0	—	—	—	33.35	34.21	34.19
	10	—	—	—	33.99	34.24	34.23
	20	—	—	—	34.17	34.24	34.23
	30	—	—	—	34.85	34.24	34.21
	50	—	—	—	—	34.19	34.22
	75	—	—	—	—	34.64	34.20
	100	—	—	—	—	34.06	—
	Botm.	—	—	—	34.06	33.78	34.19
Depth(m)		59	—	—	56	—	—
Secchi(m)		8.0	—	—	9	10	—
Color		—	—	—	5	3	—
Sea		3	—	—	—	—	—
Swell		2	—	—	—	—	—
Air Temp(°C)		15.7	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—
Wind		NNE3	—	—	—	—	—
Cloud		StCu6	—	—	—	—	—
Weather		BC	—	—	—	—	—

5월(May) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	13	0540	61	3	7		S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	1		15.3	13.7	St	2	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	14.86	34.15	6.02	0.09	—	1.97	8.30
10	14.72	34.37	6.02	—	—	—	8.30
20	14.45	34.32	5.88	0.11	—	3.29	8.30
30	13.41	34.35	5.61	0.21	—	2.63	8.25
底	4.73	34.29	5.42	0.27	—	2.63	—

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	13	0435	125			1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	1	1012	16.9	15.7			B

Z m	T ℃	S ‰	O_2 %	PO_2-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	14.88	34.88	6.02	0.15	—	—	8.18
10	14.85	34.33	5.96	0.22	—	—	—
20	14.70	34.44	5.94	0.13	—	—	8.20
30	14.49	34.50	5.81	0.12	—	1.32	8.22
50	13.34	34.51	5.67	0.15	—	0.66	8.22
75	12.68	34.36	5.59	0.32	—	0.66	8.22
100	3.49	34.26	5.59	0.57	—	2.63	8.05
底	1.54	34.25	5.50	0.74	—	2.63	7.90

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	13	0255	154			1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	2	1012	17.0	15.8			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.39	34.63	5.71	0.03	—	3.95	8.28
10	16.36	34.73	5.71	0.27	—	0.66	8.30
20	16.34	34.74	5.71	0.22	—	—	8.30
30	16.31	34.75	5.65	0.11	—	3.29	8.30
50	15.90	34.77	4.86	0.16	—	0.66	8.30
75	15.78	34.77	4.78	0.20	—	0.66	8.30
100	15.72	34.77	4.55	0.31	—	1.32	8.22
125	14.95	34.73	4.38	0.11	—	1.97	8.22
底	8.08	34.46	4.36	0.08	—	—	8.20

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	13	0055	162			1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	2	1013	17.4	16.2			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.87	34.70	6.29	0.13	—	1.97	8.25
10	16.78	34.77	6.00	0.21	—	1.32	8.28
20	16.65	34.78	5.96	0.13	—	0.66	8.30
30	16.56	34.73	5.73	0.08	—	—	—
50	16.47	34.76	5.50	0.07	—	1.32	8.30
75	16.22	34.72	5.42	0.13	—	3.95	8.30
100	15.79	—	5.32	0.08	—	3.95	8.26
125	15.71	34.73	4.88	0.07	—	4.60	8.26
底	11.86	34.66	4.88	0	—	1.97	8.12

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	12	2315	125			1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1013	17.3	16.9			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-S μgat/L	pH
0	16.91	34.63	6.00	0.07	—	6.58	8.40
10	16.38	34.73	6.25	0.13	—	5.26	8.38
20	16.30	34.76	6.10	0.13	—	1.97	8.39
30	16.25	34.75	6.02	0.19	—	0.66	—
50	16.53	34.70	5.69	0.20	—	1.32	—
75	15.99	34.83	5.63	0.19	—	1.32	8.10
100	15.23	34.49	5.01	0.16	—	—	8.10
底	14.89	34.73	5.01	0.13	—	3.95	8.18

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	12	2210	130				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.12	34.65	5.79	—	—	0.66	8.33
10	16.45	34.75	5.71	0.11	—	1.97	8.30
20	16.40	34.77	5.69	0.07	—	0.66	8.29
30	16.39	34.60	5.65	0.12	—	1.32	8.29
50	15.66	34.76	5.13	0.13	—	3.95	8.28
75	15.68	31.82	4.90	0.43	—	3.28	8.27
100	15.27	—	4.61	0.33	—	3.95	8.30
底	15.00	34.79	4.55	0.37	—	3.95	8.27

Date		June						
St No.		01	02	03	04	05	06	07
Day		15	15	15	15	14	14	14
Item	Time / Z(m)	0510	0400	0223	0050	2320	2145	2030
T ℃	0	19.02	19.32	19.52	20.02	19.52	19.82	19.92
	10	18.20	18.80	19.25	19.00	18.80	19.10	19.40
	20	17.75	16.40	17.70	18.50	18.30	18.90	19.40
	30	15.95	15.10	14.95	17.90	18.20	18.50	18.10
	50	8.12	13.30	14.60	16.60	17.40	17.80	17.10
	75	—	11.52	15.10	14.05	16.25	16.35	16.30
	100	—	—	14.60	14.30	15.75	15.85	15.30
	Botm.	5.10	4.09	8.02	13.50	12.95	15.50	15.40
S ‰	0	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—
Depth(m)		61	—	140	135	140	130	134
Secchi(m)		—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—
Sea		2	2	4	4	3	3	3
Swell		1	1	2	2	2	2	2
Air Temp. (°C)		15.5	19.3	19.2	20.0	19.4	19.8	20.2
Baro. (mm)		1013	1013	1014	1014	1014	1014	1014
Wind		W. 1	W.	SW.	SW.	SW.	SW.	SW.
Cloud		—	—	—	—	—	—	—
Weather		R	R	C	C	C	—	

11월(November) 조사선(Baek Du San)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
01	8	1510	72	4	8	2	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
S	3	1018	18.0	15.3	Al-Cu	2	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.98	33.23	5.56	0.027	0.19	17.10	8.13
10	17.14	33.27	5.23	0.032	0.14	20.39	8.37
20	17.00	33.36	5.09	0.018	0.12	27.63	8.42
30	16.77	33.43	4.89	0.046	0.08	23.68	8.40
50	10.38	34.21	3.92	0.020	0.38	43.42	8.32
底	5.67	34.17	4.43	0.133	0.09	57.23	8.25

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
02	8	1355	124		14	2	L

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1018	16.2	14.7	Al-Cu	2	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	18.41	33.16	5.42	0.011	0.06	10.53	8.30
10	18.31	33.15	5.42	0.030	0.12	16.45	8.31
20	18.25	33.15	5.42	0.021	0.09	15.13	8.33
30	17.79	33.21	5.12	0.025	0.04	13.82	8.35
50	17.71	34.39	3.34	0.055	0.06	34.20	8.27
75	15.98	34.53	3.43	0.034	0.10	36.84	8.28
100	8.92	34.26	4.21	0.062	0.10	44.73	8.22
底	3.54	34.13	5.05	0.020	0.02	46.05	8.00

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
03	8	1240	152	3	13	2	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NW	3	1019	16.3	13.4			

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.06	33.68	5.00	0.016	0.12	13.16	8.30
10	21.05	33.68	4.98	0.018	0.04	11.84	8.20
20	20.86	33.70	4.83	0.027	0.02	13.82	8.29
30	20.83	33.82	4.81	0.014	0.04	13.16	8.43
50	20.64	33.89	4.77	0.014	0.10	15.13	8.50
75	18.70	34.40	4.32	—	—	—	8.37
100	17.53	34.53	3.63	0.018	0.02	28.28	8.30
125	15.52	34.52	3.57	0.023	0.08	19.07	8.25
底	4.30	34.16	3.54	0.027	—	42.09	8.24

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	8	1100	160	3	21	1	M

Wind		Baro.	Air Temp		Cloud		Weather
Direction	Force		Dyr	Wet	Type	Amount	
NE	2	1020	16.6	14.1	Al-Cu	1	B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.32	33.57	5.09	0.021	0.02	19.07	8.38
10	20.19	33.53	7.11	0.027	2.46	57.88	8.49
20	20.17	33.58	6.99	0.025	0.07	15.13	8.45
30	20.19	33.58	6.42	0.018	0.04	7.24	8.40
50	20.45	33.71	5.60	0.021	0.05	16.45	8.15
75	20.30	33.58	4.87	0.021	0.09	19.07	8.20
100	19.84	33.71	3.76	0.053	—	28.28	8.30
125	16.85	34.37	3.43	0.025	0.09	26.97	8.30
底	10.04	34.43	3.96	0.093	0.15	119.06	8.20

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	8	09.50	146	3	20	1	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1020	17.4	15.5	Al-Cu	4	BC

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.55	33.79	4.87	0.025	0.02	12.49	8.15
10	20.65	33.81	4.98	0.014	0.04	9.87	8.32
20	20.60	33.83	4.89	0.011	0.05	10.53	8.00
30	20.60	33.83	4.87	0.018	0.04	10.53	8.18
50	20.72	33.87	4.43	0.018	—	—	8.40
75	20.76	33.99	4.32	0.021	0.04	7.24	8.45
100	18.65	34.38	3.68	0.051	1.02	17.10	8.42
125	16.37	34.40	3.32	0.041	0.10	38.15	8.40
底	16.39	34.39	3.08	—	1.35	63.80	8.30

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	8	0800	130	3	15	1	M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1019	17.0	16.4	Al-Cu	4	BC

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.89	33.90	4.87	0.028	0.02	12.49	8.36
10	20.81	33.91	4.89	0.014	0.02	11.18	8.45
20	20.90	33.89	4.89	0.025	0.10	13.82	8.41
30	20.90	33.91	4.87	0.021	0.02	13.16	8.44
50	21.91	33.91	4.85	0.021	0.09	11.84	8.35
75	20.14	34.22	3.87	0.018	0.02	17.10	8.27
100	18.20	34.44	3.57	0.018	0.02	23.03	8.20
底	15.03	34.36	3.48	0.027	0.04	30.92	8.10

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	8	0625	135			1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	2	1019	16.7	16.4	Al-Cu		B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.21	34.00	4.96	0.020	0.02	9.87	8.43
10	21.23	34.00	4.98	0.021	0.09	12.49	8.37
20	21.23	34.01	4.85	0.011	0.04	13.82	8.48
30	21.16	33.99	4.92	0.013	0.02	11.84	8.35
50	21.06	33.97	4.92	0.016	0.02	9.20	8.32
75	19.04	34.28	4.16	0.021	0.07	14.47	8.35
100	18.51	34.47	3.43	0.025	0.04	20.39	8.30
底	13.80	—	3.01	—	—	140.76	8.24

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	8	0450	140				M

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	3	1018	16.6	16.05			BC

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.30	34.04	4.87	0.053	—	7.24	8.37
10	21.33	34.04	4.89	0.028	0.02	9.20	8.44
20	21.36	34.04	4.97	0.020	0.09	16.45	8.48
30	21.32	34.05	4.94	0.018	0.10	21.05	8.40
50	21.28	34.04	4.09	0.027	0.07	20.39	8.40
75	20.69	34.09	4.32	0.023	0.04	21.70	8.46
100	18.66	34.40	3.72	0.027	0.05	21.70	8.46
底	13.39	34.31	3.76	0.025	0.06	40.13	8.41

209선 해 양 관 측 성 적

Oceanographic Data, Line 209

Date		April		
St No.		01	02	03
Day		25	25	25
Item	Time / Z(m)	0620	0815	1115
T ℃	0	—	—	—
	10	15.05	14.90	14.53
	20	14.91	14.83	13.60
	30	14.60	14.69	12.97
	50	12.10	14.51	11.97
	75	—	14.17	11.19
	100	—	10.95	7.53
	150	—	2.72	3.41
	200	—	1.30	1.88
	Botm.	4.98	—	—
S ‰	0	34.13	34.17	34.24
	10	34.13	34.22	34.16
	20	34.15	34.21	34.14
	30	34.11	34.21	34.13
	50	34.37	34.19	34.07
	75	—	34.18	—
	100	—	34.03	34.83
	150	—	33.73	33.72
	200	—	33.69	33.69
	Botm.	34.96	—	—
Depth(m)		69	—	—
Secchi(m)		10	8	10
Color		3	3	3
Sea		—	—	—
Swell		—	—	—
Air Temp. (°C)		—	—	—
Baro. (mm)		—	—	—
Wind		—	—	—
Cloud		—	—	—
Weather		—	—	—

5월 (May)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	13	1020	60	4	11	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
E	2	1012	21.0	18.2			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	15.11	34.28	5.94	0.25	—	1.97	8.40
10	13.49	34.38	5.86	0.19	—	5.26	8.30
20	11.48	34.43	5.63	0.27	—	5.26	8.20
30	9.10	—	5.40	0.27	—	5.92	8.12
底	10.09	34.41	5.40	0.29	—	6.58	8.24

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	13	1115	152	4	10	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
ENE	1	1014	20.8	16.1			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	15.56	34.44	5.98	0.05	—	6.58	—
10	15.13	34.47	6.04	2.22	—	6.58	7.90
20	15.19	34.56	5.90	0.15	—	0.66	—
30	14.18	34.44	5.86	0.08	—	0.66	8.06
50	13.77	34.63	5.29	0.05	—	0.66	8.22
75	6.02	34.45	5.27	0.01	—	3.95	8.10
100	2.77	—	5.23	0.25	—	3.95	8.00
125	2.11	34.28	5.19	0.24	—	6.58	7.94
底	1.97	34.35	5.07	0.25	—	6.58	7.94

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	13	1325	228	3	7	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SSE	2	1015	20.27	17.2			B

Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.65	34.63	6.10	0.19	—	3.95	7.70
10	16.03	34.70	6.12	0.12	—	0.66	8.00
20	15.84	34.68	6.12	0.20	—	3.95	8.20
30	15.73	34.66	5.40	—	—	—	8.20
50	15.40	34.70	5.11	0.19	—	3.29	8.22
75	14.88	34.70	5.09	0.27	—	5.26	8.15
100	11.25	34.62	5.42	0.32	—	2.63	8.15
125	7.48	34.30	5.59	0.73	—	3.29	7.98
150	1.75	34.52	5.61	0.25	—	3.95	7.90
200	1.12	34.26	5.61	0.13	—	7.24	7.90
底	1.14	34.27	5.61	—	—	0.66	7.86

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	13	1605	320	3	8	2	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	4	1013	19.8	18.48			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.20	34.17	5.61	—	—	0.00	8.10
10	16.21	34.26	5.56	0.09	—	3.29	8.12
20	16.19	34.72	5.61	0.13	—	—	8.10
30	16.15	34.72	6.02	0.13	—	5.26	8.10
50	15.94	34.70	6.06	0.25	—	1.97	8.18
75	14.96	34.67	5.81	0.25	—	2.63	8.20
100	13.90	34.63	5.81	0.20	—	4.60	8.20
125	14.08	34.33	5.48	0.19	—	4.60	7.92
150	4.26	34.20	5.44	0.39	—	4.60	7.83
200	1.34	34.19	5.19	0.35	—	3.29	7.85
250	0.95	34.24	5.19	0.39	—	2.63	7.76
300	0.69	34.63	5.05	0.39	—	0.66	8.20
底	0.74	34.65	4.98	0.47	—	1.32	8.22

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	13	1810	220	2	8	2	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	3	1013	18.25	17.29			B

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.40	34.73	5.88	0.05	—	1.97	8.30
10	16.13	34.89	5.11	0.08	—	3.95	8.30
20	15.99	34.77	5.71	0.20	—	3.95	8.30
30	15.81	34.76	5.69	0.32	—	4.60	8.23
50	15.75	34.83	5.36	0.35	—	3.95	8.14
75	15.49	34.77	4.88	0.53	—	6.58	8.30
100	15.00	34.73	4.84	0.60	—	—	8.30
125	13.21	34.62	4.82	—	—	1.97	8.20
150	10.87	34.63	4.78	0.67	—	1.97	8.10
200	1.99	34.28	4.69	0.69	—	1.32	8.00
底	1.69	34.26	4.65	—	—	0.66	7.88

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	13	2010	170				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
WSW	2	1013	17.88	17.42			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	16.69	34.67	5.98	0.15	—	0.66	8.22
10	16.49	34.78	6.02	0.51	—	0.66	8.26
20	16.02	34.78	5.92	0.21	—	1.32	8.26
30	15.87	34.79	5.50	0.21	—	1.97	8.20
50	15.38	34.80	5.07	0.20	—	—	8.20
75	14.49	34.77	4.98	0.07	—	1.97	8.20
100	13.58	34.30	5.29	0.22	—	5.26	8.20
125	12.68	34.68	5.40	0.07	—	0.66	8.22
150	9.53	34.60	5.75	0.11	—	7.24	8.28
底	9.16	34.59	5.81	0.35	—	16.45	8.28

Date		June				
St No.		04	05	06	07	08
Day		16	16	16	16	16
Item	Time / Z(m)	0836	0935	1105	1255	1523
T ℃	0	17.52	19.12	19.82	19.32	19.72
	10	17.78	18.15	19.30	19.10	18.95
	20	15.41	16.60	19.00	19.00	19.30
	30	12.00	14.35	17.60	18.80	18.70
	50	4.40	14.65	14.95	17.10	15.45
	75	—	7.10	15.00	15.15	15.10
	100	—	2.60	14.30	14.70	14.70
	125	—	—	2.75	6.81	5.20
	Botm.	3.01	1.40	1.80	2.10	1.80
S ‰	0	—	—	—	—	—
	20	—	—	—	—	—
	30	—	—	—	—	—
	50	—	—	—	—	—
	75	—	—	—	—	—
	100	—	—	—	—	—
	125	—	—	—	—	—
	Botm.	—	—	—	—	—
Depth(m)		67	150	—	—	—
Secchi(m)		7	15	17	18	17
Color		5	5	3	3	2
Sea		3	4	—	—	—
Swell		1	2	3	3	3
Air Temp. (°C)		19.2	19.0	19.7	19.2	19.5
Baro. (mm)		1013	1014	—	1013	1012
Wind		NE. 3	NE. 4	—	—	—
Cloud		—	—	—	—	—
Weather		C	C	C	C	C

11월 (November)

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
04	9	085	65	3	10	1	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	2	1018	15.59	13.6	Al-Cu	3	B

Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.76	33.26	4.76	0.03	0.33	26.97	8.34
10	17.58	33.40	—	—	—	—	8.40
20	17.06	33.28	4.43	0.05	0.36	30.92	8.32
30	14.06	33.87	4.10	0.03	0.15	34.86	8.23
底	5.18	34.06	4.87	0.03	0.04	51.30	8.20

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
05	9	0920	130	3	8	2	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNE	3	1019	17.0	15.4	Al-Cu	3	B

Z m	T ℃	S ‰	O_2 cc/L	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	17.17	33.16	5.26	0.04	0.22	26.97	8.29
10	17.13	33.20	5.18	0.02	0.23	22.36	8.44
20	17.19	33.20	5.12	0.02	0.08	21.70	8.45
30	17.24	33.36	4.81	0.02	0.04	17.10	8.38
50	16.30	34.49	3.43	0.03	0.06	22.36	8.33
75	6.08	34.13	4.76	0.04	0.10	23.68	8.17
100	2.30	34.04	5.45	0.06	0.09	23.68	8.10
底	1.08	34.03	5.85	0.28	0.02	23.68	8.00

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
06	9	1155	4.36	3	15	2	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	2	1018	17.2	14.5			B

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	21.07	33.84	5.00	0.03	—	5.26	8.32
10	20.96	33.88	5.00	0.02	0.12	7.24	8.43
20	20.97	33.83	4.98	0.02	0.14	4.60	8.52
30	20.43	33.69	5.09	0.03	0.04	7.89	8.57
50	17.82	33.63	4.45	0.02	0.65	10.53	8.50
75	17.20	34.53	3.52	0.05	—	17.76	8.41
100	12.37	34.37	3.79	0.03	0.35	28.94	8.37
125	8.13	34.06	5.65	0.04	0.06	30.26	8.20
150	2.73	34.25	4.43	0.05	0.04	24.99	8.16
200	1.52	34.03	5.87	0.14	0.04	26.32	7.85
250	1.09	34.01	5.82	0.04	0.10	26.97	7.94
300	0.89	34.02	5.76	0.03	0.07	35.52	8.03
底	0.68	34.03	5.62	0.02	0.02	32.23	8.06

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
07	9	1400	320	3	17	2	S

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NNW	1	1016	18.2	16.8			

Z m	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.48	33.58	5.09	0.02	0.15	3.29	8.22
10	20.32	33.59	5.18	0.02	0.09	6.58	8.40
20	20.39	33.59	5.14	0.02	0.04	7.89	8.44
30	20.31	33.58	5.09	0.03	0.12	5.92	8.44
50	20.57	33.87	4.63	0.02	0.06	9.20	—
75	18.82	34.17	4.21	0.04	0.06	17.10	8.41
100	17.00	34.43	3.50	0.03	0.02	25.65	8.10
125	4.67	34.11	5.20	0.03	0.08	26.97	8.08
150	1.59	34.02	5.76	0.03	0.10	37.49	8.06
200	0.86	34.02	5.82	0.03	0.09	28.28	8.10
250	0.75	34.06	5.76	0.02	0.10	28.94	8.18
300	0.53	34.02	5.31	0.04	0.06	31.57	8.01

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
08	9	1605	270	3	14	1	

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
NE	1	1017	18.0	16.2	Ci	1	B

Z *m*	T ℃	S ‰	O_2 cc/L	PO_4–P μgat/L	NO_2–N μgat/L	SiO_2–Si μgat/L	pH
0	20.92	33.95	4.98	—	0.19	3.95	8.30
10	20.87	33.95	4.98	0.02	0.12	11.18	8.39
20	20.86	33.95	4.98	0.02	0.08	5.92	8.01
30	20.86	33.94	4.98	0.02	0.12	7.24	8.15
50	20.79	33.93	4.98	0.02	0.06	9.87	8.30
75	19.86	34.28	3.81	0.02	—	15.78	8.30
100	17.37	34.36	3.57	0.02	0.04	23.68	8.22
125	6.02	34.14	5.00	0.03	0.12	30.92	8.13
150	2.06	34.04	5.58	0.03	0.12	22.36	8.10
200	0.79	34.03	5.87	0.04	0.04	33.55	8.08
底	0.61	34.04	5.71	0.52	0.06	36.18	8.02

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
09	9	1810	198				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
		1017			Ci	2	B

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.88	33.89	4.98	0.02	0.08	3.29	8.28
10	20.91	33.89	4.98	0.03	0.12	3.95	8.40
20	20.88	33.90	4.94	0.02	0.14	1.97	8.38
30	20.84	33.90	4.93	0.02	—	—	8.00
50	20.81	33.91	4.89	0.02	0.09	11.84	8.12
75	20.66	33.89	4.89	0.02	0.06	7.24	8.10
100	17.84	34.39	4.81	0.03	0.12	17.10	8.04
125	10.66	33.84	5.49	0.03	0.09	13.82	8.02
150	1.63	34.06	3.54	0.09	0.08	28.28	7.95
底	0.58	34.55	4.43	0.07	0.04	52.63	7.95

St No.	Date	Time	Depth	Water Color	Water Trans.	Wave	Swell
10	9	2005	145				

Wind		Baro.	Air Temp.		Cloud		Weather
Direction	Force		Dry	Wet	Type	Amount	
SW	2	1017	17.8	15.0			B

Z *m*	T ℃	S ‰	O_2 %	PO_4-P μgat/L	NO_2-N μgat/L	SiO_2-Si μgat/L	pH
0	20.76	33.87	5.56	0.03	0.12	4.60	8.25
10	20.79	33.87	4.98	0.02	0.06	0.66	8.46
20	20.62	33.83	5.20	0.03	0.12	9.87	8.65
30	20.42	33.78	4.98	0.02	0.25	6.58	8.49
50	20.45	33.77	4.94	0.02	0.02	1.32	8.45
75	20.19	33.75	4.98	0.02	0.10	3.95	8.52
100	19.40	34.28	3.65	0.04	0.07	13.82	8.59
125	17.04	34.56	3.57	0.05	0.04	20.39	8.50
底	7.40	34.16	4.54	0.12	0.10	30.26	8.37

313선 해 양 관 측 성 적

Oceanographic Data, Line 313

Date		May					
St No.		02	03	04	05	06	07
Day		17	17	17	17	17	17
Item	Time / Z(m)	1915	1130	1340	1530	1740	1930
T ℃	0	17.78	17.38	17.68	17.18	17.28	17.58
	10	16.78	16.62	16.40	15.89	15.01	16.22
	20	16.58	17.08	15.8	15.28	15.31	15.51
	30	16.39	16.08	15.9	15.38	15.27	15.42
	50	16.02	15.95	14.77	15.28	15.61	15.32
	75	15.41	14.01	14.26	14.37	14.78	14.99
	Botm.	15.29	15.99	14.25	14.37	14.29	14.70
S ‰	0	34.05	34.05	34.06	33.80	33.70	33.94
	10	34.04	34.05	34.05	33.75	33.73	33.93
	20	34.17	34.23	34.23	33.72	33.89	33.84
	30	34.28	34.22	34.30	34.07	33.78	33.84
	50	34.38	34.35	34.58	34.28	—	34.26
	75	34.35	34.35	34.15	34.20	34.13	34.16
	Botm.	34.30	34.27	34.14	34.22	34.15	34.10
Depth(m)		82	90	90	97	85	95
Secchi(m)		19	14	16	13	11	10
Color		—	—	—	—	—	—
Sea		1	1	—	1	1	1
Swell		1	1	1	1	1	1
Air Temp. (°C)		18.9	19.0	20.6	19.7	19.8	19.1
Baro. (mm)		NE. 1	NE. 2	NE. 2	NE. 2	NE. 1	NE. 1
Wind		—	—	—	—	—	—
Cloud		St4	St5	St6	St8	St8	St7
Weather		BC	BC	BC	BC	BC	BC

Date		August					
St No.		02	03	04	05	06	07
Day		26	26	26	26	27	27
Item	Time / Z(m)	2150	1110	1350	1640	0800	1410
T ℃	0	28.04	27.5	26.50	28.0	28.0	27.0
	10	27.72	—	—	—	—	—
	20	26.52	—	—	—	—	—
	30	17.62	—	—	—	—	—
	50	15.62	—	—	—	—	—
	75	14.51	—	—	—	—	—
	Botm.	14.93	14.20	15.39	14.52	14.42	10.92
S ℃	0	—	29.09	27.07	28.46	28.75	29.35
	10	—	—	—	—	—	—
	20	—	—	—	—	—	—
	30	—	—	—	—	—	—
	50	—	—	—	—	—	—
	75	—	—	—	—	—	—
	Botm.	—	33.78	33.91	33.74	33.78	33.34
Depth(m)		100	98	80	86	90	85
Secchi(m)		—	22	20	19	18	20
Color		—	1	1	1	1	2
Sea		1	—	—	—	—	—
Swell		1	—	—	—	—	—
Air Temp. (°C)		27.4	—	—	—	—	—
Baro. (mm)		750	—	—	—	—	—
Wind		—	—	—	—	—	—
Cloud		—	—	—	—	—	—
Weather		C	—	—	—	—	—

Date		November				
St No.		02	03	04	05	06
Day		9	9	9	9	9
Item	Time / Z(m)	0810	1020	1230	1420	208
T ℃	0	19.88	20.18	20.88	20.28	19.51
	10	19.86	20.22	19.82	19.88	19.52
	20	20.74	20.33	20.00	19.92	19.52
	30	20.53	20.57	20.13	19.81	20.48
	50	20.96	20.41	19.42	19.93	17.86
	75	20.97	20.22	19.01	18.00	—
	Botm.	20.86	20.40	18.99	18.52	19.72
S ‰	0	—	33.00	—	32.95	—
	10	33.03	33.05	32.87	32.92	32.70
	20	33.80	33.27	32.89	32.92	32.69
	30	33.80	33.43	33.19	32.93	32.70
	50	33.89	33.76	33.49	32.95	32.85
	75	—	33.93	34.32	34.28	34.17
	Botm.	33.91	34.06	34.35	32.97	32.80
Depth(m)		83	92	97	95	90
Secchi(m)		16	17	18	20	23
Color		—	—	—	—	—
Sea		0.5	0.5	0.5	0.5	0.5
Swell		2	2	2	2	2
Air Temp(°C)		15.7	17.2	18.2	18.5	17.2
Baro. (mm)		—	—	—	—	—
Wind		SE6	SE6	SE6	SE4	SE4
Cloud		Ci. 2	Ci. 2	Ci. 2	Ci. 2	Ci. 2
Weather		BC	BC	BC	BC	BC

314선 해 양 관 측 성 적

Oceanographic Data, Line 314

Date		April			March
St No.		01	02	04	06
Day		2	2	1	28
Item	Time / Z(m)	1125	0800	0900	1610
T ℃	10	16.48	15.40	15.36	14.04
	20	16.49	15.55	15.99	14.16
	30	16.70	—	—	14.96
	50	—	15.66	—	—
	75	—	15.47	15.63	—
	100	16.33	—	—	—
	Botm.	14.66	15.43	12.56	—
S ‰	10	—	—	—	—
	20	—	—	—	—
	30	—	—	—	—
	50	—	—	—	—
	75	—	—	—	—
	100	—	—	—	—
	Botm.	—	—	—	—
Depth(m)		138	118	105	128
Secchi(m)		15	12	6	8
Color		—	—	—	—
Sea		—	—	—	—
Swell		2	2	3	3
Air Temp. (°C)		—	—	—	—
Baro. (mm)		—	—	—	—
Wind		3	3	5	NW. 4
Cloud		Ci-St. 7	Ci St. 7	St. 4	St. 3
Weather		C	C	B	B

Date		May						
St No.		02	03	04	05	06	07	08
Dya		19	19	19	19	19	19	20
Item	Time / Z(m)	1010	1330	1610	1840	2010	2330	1010
T ℃	0	18.32	18.11	17.82	17.81	17.68	17.78	17.60
	10	18.22	17.99	17.31	16.91	17.33	16.54	16.31
	20	17.82	17.49	17.41	16.41	15.98	16.70	16.62
	30	17.42	17.11	16.21	16.47	15.89	16.70	15.96
	50	16.11	15.79	15.29	15.98	15.97	15.33	15.71
	75	15.88	15.44	15.00	15.18	15.47	15.48	15.51
	100	15.43	15.35	—	14.89	14.77	—	—
	Botm.	15.19	14.30	15.08	15.09	14.86	15.47	15.78
S ‰	0	34.43	34.47	34.46	34.46	34.45	34.37	34.39
	10	34.48	34.47	34.44	34.38	—	34.38	34.48
	20	34.61	34.43	34.38	34.38	34.35	34.37	34.47
	30	34.43	34.40	34.42	34.37	34.37	34.37	34.33
	50	34.43	34.39	34.42	34.42	34.38	34.38	34.33
	75	34.44	34.40	34.36	34.45	34.34	34.27	34.33
	100	34.46	34.39	—	34.45	34.29	—	—
	Botm.	34.38	34.38	—	34.34	34.28	34.29	34.34
Depth(m)		120	112	105	116	115	100	96
Secchi(m)		12	13	11	12	12	—	—
Color		—	—	—	—	—	—	—
Sea		2	1	1	1.5	1.5	1.5	1.5
Swell		2	2	2	2	3	2	1
Air Temp(°C)		20.8	21.7	20.4	19.6	18.8	18.2	18.2
Baro. (mm)		—	—	—	—	—	—	—
Wind		NE4	NE5	NE6	NE7	NE7	NE7	NE7
Cloud		St10	St10	St9	St7	St10	St10	St9
Weather		C	C	C	BC	C	C	C

Date		June					
St No.		00	01	02	03	04	05
Day		23	24	24	24	24	24
Item	Time / Z(m)	2200	0030	0300	0530	0800	1020
T ℃	0	23.02	22.62	22.72	22.00	22.28	22.40
	10	22.92	22.52	22.61	21.37	21.70	21.81
	20	22.51	22.03	22.41	20.64	21.59	21.14
	30	22.00	21.64	22.11	20.79	21.2	20.28
	50	20.79	17.94	20.79	13.03	18.24	17.23
	75	17.88	16.93	17.21	16.07	15.11	14.79
	100	16.82	15.60	15.80	—	—	—
	Botm.	14.30	15.33	15.50	15.26	15.05	14.66
S ‰	0	—	—	—	—	—	—
	10	—	—	—	—	—	—
	20	—	—	—	—	—	—
	30	—	—	—	—	—	—
	50	—	—	—	—	—	—
	75	—	—	—	—	—	—
	100	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—
Depth(m)		158	130	110	105	100	103
Secchi(m)		—	—	—	—	15	13
Color		—	—	—	—	3	3
Sea		3	3	—	—	4	3
Swell		3	3	3	3	2	2
Air Temp(°C)		22.8	23.0	22.7	22.4	22.5	22.6
Baro. (mm)		1017	1016	1015	1016	1016	1015
Wind		S. 3	S. 4	SW. 4	S. 4	SW. 4	SW
Cloud		—	—	—	—	—	—
Weather		C	C	C	C	C	C

Date		August						
St No.		00	01	02	03	04	05	06
Day		27	28	28	28	28	28	27
Item	Time / Z(m)	2150	0005	0. 20		0600	0820	0130
T ℃	0	28. 42	28. 1	28. 43	27. 3	27. 66	27. 88	27. 64
	10	28. 14	28. 2	28. 47	27. 3	27. 02	27. 81	27. 72
	20	27. 99	28. 1	28. 50	27. 3	26. 91	28. 08	27. 73
	30	28. 01	28. 0	28. 23	27. 0	23. 97	23. 47	25. 41
	50	24. 32	24. 5	24. 32	16. 5	15. 11	14. 84	15. 47
	75	22. 23	21. 0	20. 57	16. 0	16. 56	15. 14	13. 49
	100	20. 43	19. 5	18. 58	—	—	—	14. 84
	125	15. 84	15. 5	—	—	—	—	—
	Botm.	13. 29	—	15. 83	15. 00	15. 09	15. 38	14. 83
S ‰	0	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—
	125	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—
Depth(m)		163	160	134	—	110	115	125
Secchi(m)		—	—	—	—	11	18	—
Color		—	—	—	—	2	2	2
Sea		1	1	1	1	1	1	S
Swell		1	1	1	1	1	1	—
Air Temp(°C)		27. 6	27. 8	28	27. 1	27. 6	27. 8	27. 8
Baro. (mm)		760	760	759	759	759	759	750
Wind		N2	N2	N2	—	N3	N3	NE4
Cloud		—	—	—	—	Al-St9	Al-St6	—
Weather		—	—	—	—	BC	BC	B

Date		November						
St No.		02	03	04	05	06	07	08
Day		10	10	10	10	10	9	9
Item	Time / Z(m)	1150	0920	0640	0410	0130	2300	2030
T ℃	0	21.78	21.98	21.88	21.48	21.38	21.78	20.48
	10	21.63	21.27	21.67	21.77	21.43	21.76	20.34
	20	21.52	21.24	21.75	21.72	21.42	21.87	20.98
	30	21.54	21.48	21.73	21.88	21.88	22.02	21.64
	50	21.34	21.23	21.61	20.53	21.19	21.56	20.91
	75	20.30	20.86	20.08	21.20	21.02	21.02	21.16
	100	19.09	18.82	—	20.21	20.61	20.93	—
	Botm.	18.09	18.08	18.35	17.90	20.93	19.81	18.97
S ‰	0	34.03	34.05	34.13	34.14	34.16	34.06	33.20
	10	34.02	34.03	34.16	34.20	34.17	34.23	33.21
	20	34.02	34.06	34.17	34.18	34.19	34.23	33.49
	30	34.02	34.04	34.18	34.20	34.18	34.25	33.91
	50	33.99	33.94	34.13	34.17	34.15	34.21	33.61
	75	34.12	34.05	34.18	34.13	34.17	34.20	34.11
	100	34.23	34.36	—	34.23	34.21	34.14	—
	Botm.	—	34.56	34.50	34.53	34.17	34.26	34.35
Depth(m)		120	112	105	120	116	115	95
Secchi(m)		12	20	—	—	—	—	—
Color		—	—	—	—	—	—	—
Sea		2	2	0.5	0.5	0.5	0.5	0.5
Swell		2	2	2	2	2	2	2
Air Temp(°C)		17.8	17.1	14.9	15.2	16.0	16.2	16.5
Baro. (mm)		—	—	—	—	—	—	—
Wind		NW. 4	NW. 4	NW. 4	NW. 4	NE. 6	NE. 8	NE. 3
Cloud		Cu. 10	Cu. 10	Cu. 10	Cu. 10	Cu. 5	Cu. 5	Cu. 5
Weather		C	C	C	C	BC	BC	B

315선 해 양 관 측 성 적

Oceanographic Data Line, 315

Date		August						
St No.		9	10	11	12	13	14	15
Day		27	27	27	27	27	27	27
Item	Time / Z(m)	1725	1535	1320	1140	0930	0740	1530
T ℃	0	29.25	29.5	28.50	28.8	28.72	28.4	28.64
	10	27.81	28.5	28.07	28.6	28.46	28.4	28.65
	20	27.40	27.5	27.83	28.5	28.27	28.1	24.88
	30	24.40	26.5	27.94	28.4	28.29	28.0	17.04
	50	22.23	24.3	23.33	23.8	21.43	17.0	16.87
	75	19.95	22.0	21.51	21.5	19.33	17.4	15.70
	100	18.26	19.9	19.71	18.8	15.75	18.0	—
	125	17.72	—	—	—	—	—	—
	150	16.51	—	—	—	—	—	—
	200	15.13	—	—	—	—	—	—
	250	14.25	—	—	—	—	—	—
	300	12.09	—	—	—	—	—	—
	Botm.	11.37	16.6	17.87	17.1	15.63	15.5	15.63
S ‰	0	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—
	125	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	—	—	—	—	—	—	—
Depth(m)		340	165	148	130	130	120	114
Secchi(m)		23	19	18	17	17	—	—
Color		2	4	4	—	—	—	—
Sea		1	1	1	2	2	2	2
Swell		1	1	1	1	1	2	2
Air Temp(°C)		27.4	30.0	28.4	28.6	28.3	28.8	26.8
Baro. (mm)		759	759	760	760	760	760	760
Wind		E2	SE2	E3	SE3	SE3	SE2	SE3
Cloud		Al-St6	Al-St6	Ai-St1	Al-St4	Al-St	Al-St7	Al-St9
Weather		BC	B	g	B	B	B	B

서 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS WESTERN WATERS

1966

312선 해 양 관 측 성 적

Oceanographic Data, Line 312

Date		April					
St No.		02	03	04	05	06	07
Day		20	20	20	20	20	20
Item	Time / Z(m)	0735	0850	1020	1153	1505	1715
T ℃	0	—	—	—	—	—	—
	10	12.95	12.62	12.13	10.10	11.92	10.70
	20	12.18	12.31	11.02	10.40	11.50	10.28
	30	12.09	11.97	11.88	10.25	11.94	10.54
	50	12.08	11.92	11.14	10.11	11.45	10.19
	Botm.	11.95	11.82	11.43	10.46	11.35	10.33
S ‰	0	33.75	33.73	33.67	33.10	33.63	33.71
	10	33.78	33.74	33.70	33.02	33.69	33.62
	20	33.79	33.76	33.72	33.29	33.70	33.60
	30	33.80	—	33.70	33.29	33.70	33.59
	50	33.79	33.76	33.70	33.35	33.70	33.59
	Botm.	33.71	33.69	33.70	33.44	33.69	33.59
Depth(m)		65	—	—	—	88	96
Secchi(m)		7	7	5	5	7	6
Color		—	—	—	—	—	—
Sea		1	1	1	1	2	2
Swell		—	—	—	—	1	1
Air Temp. (°C)		13.2	13.8	13.5	12.8	13.6	12.4
Baro. (mm)		1016	1016	1011	1016	1014	1014
Wind		SW. 1	SW. 1	SW. 1	SW. 1	SW. 1	SW. 1
Cloud		Ci	Ci	Ci	Ci	Ci	Ci
Weather		B	B	B	B	B	B

Date		May					
St No.		02	03	04	05	06	07
Day		22	22	22	22	22	22
Item	Time / Z(m)	0520	0730	0940	1150	1410	1720
T ℃	0	15.88	15.58	15.78	15.38	14.98	12.78
	10	14.67	14.89	14.41	13.18	13.41	12.11
	20	14.07	13.32	13.55	13.08	13.33	11.09
	30	13.84	12.18	13.04	12.97	13.47	11.00
	50	13.90	12.17	—	13.00	13.32	11.00
	75	—	—	—	—	—	11.05
	Botm.	13.56	12.21	11.41	13.06	13.87	11.08
S ‰	0	32.94	—	33.19	33.91	33.99	33.10
	10	33.14	13.04	33.18	33.93	—	33.10
	20	33.60	33.98	33.73	33.93	34.00	33.10
	30	33.89	33.99	33.98	33.93	34.00	33.13
	50	33.92	33.93	—	34.00	34.02	33.13
	75	—	—	—	—	34.00	33.14
	Botm.	—	34.00	34.03	33.93	34.00	33.13
Depth(m)		77	78	58	76	92	96
Secchi(m)		11.5	11	14	12	11	10
Color		—	—	—	—	—	—
Sea		1	1	1	1	1	1
Swell		2	2	2	2	2	2
Air Temp. (°C)		16.7	16.8	18.1	18.5	—	17.0
Baro. (mm)		—	—	—	—	—	—
Wind		NW. 2	NW. 4	NW. 4	NW. 4	NW. 4	NW. 4
Cloud		Ci. 2	Cu. 8	Cu. 8	Cu. 8	Cu. 8	Cu. 8
Weather		BC	C	C	BC	BC	BC

Date		November					
St No.		02	03	04	05	06	07
Day		4	4	4	4	4	4
Item	Time / Z(m)	2135	1930	1720	1520	1315	1110
T ℃	0	17.38	16.18	16.26	17.08	16.58	16.68
	10	15.96	15.79	16.34	16.19	16.34	16.12
	20	15.70	15.64	16.11	16.19	16.19	16.20
	30	15.33	15.52	15.98	16.12	15.36	16.08
	50	15.31	15.62	15.48	15.18	15.31	15.93
	75	—	—	—	—	—	15.51
	Botm.	15.42	15.59	15.30	15.08	14.67	15.32
S ‰	0	33.99	—	32.87	32.60	32.57	32.62
	10	—	32.55	32.52	—	32.58	—
	20	33.05	—	32.56	32.60	32.60	32.62
	30	32.12	32.89	32.75	32.67	32.78	32.62
	50	33.12	33.05	32.79	32.84	32.79	32.71
	75	—	—	—	—	—	32.72
	Botm.	33.35	32.93	32.72	32.88	32.93	32.76
Depth(m)		74	76	70	72	76	92
Secchi(m)		3	2	2	2	3	8
Color		—	—	—	—	—	—
Sea		0.5	0.5	0.5	0.5	0.5	0.5
Swell		1	1	1	1	1	1
Air Temp. (°C)		16.2	16.6	16.7	17.0	16.5	15.4
Baro. (mm)		—	—	—	—	—	—
Wind		NE. 3	NE. 3	NE. 3	NE. 3	NE. 3	NE. 3
Cloud		Cu. 4	Cu. 4	Cu. 4	Cu. 4	Cu. 4	Cu. 4
Weather		BC	BC	BC	BC	BC	BC

311선 해 양 관 측 성 적

Oceanographic Data, Line 311

Date		April				November			
St No.		04	05	06	07	04	05	06	07
Day		21	21	21	20	3	3	3	3
Item	Time / Z(m)	0400	0320	100	2130	1200	1350	1545	1830
T ℃	0	—	—	—	—	16.94	16.88	16.88	16.78
	10	9.53	7.51	8.26	9.11	16.93	16.81	16.54	16.23
	20	9.33	7.47	7.46	8.32	17.08	16.61	16.02	15.98
	30	—	7.39	—	8.86	—	16.62	15.99	15.70
	50	—	7.34	—	8.08	—	16.61	15.98	15.72
	75	—	—	—	—	—	—	—	15.82
	Botm.	9.25	7.09	7.39	8.82	17.17	16.60	15.92	15.80
S ‰	0	31.92	—	32.32	32.66	32.44	32.34	32.29	32.36
	10	31.92	32.34	32.34	32.61	32.34	32.22	32.33	32.39
	20	31.96	32.36	32.41	32.61	32.38	32.32	32.53	32.55
	30	—	32.36	—	32.62	—	32.41	32.54	—
	50	—	32.41	—	32.63	—	—	32.54	—
	75	—	—	—	—	—	—	—	32.60
	Botm.	31.97	32.45	32.47	32.63	32.36	32.39	32.54	—
Depth(m)		46	61	47	90	36	65	76	85
Secchi(m)		—	—	—	—	1	3	5	7
Color		—	—	—	—	—	—	—	—
Sea		2	3	2	2	1	1	1	1
Swell		1	2	1	1	2	2	2	2
Air Temp. (°C)		—	9.5	9.0	—	18.1	17.0	17.5	16.3
Baro. (mm)		1010	1012	1013	1014	—	—	—	—
Wind		ES. 1	ES. 2	ES. 1	ES. 1	NE. 6	NE. 6	NE. 6	NE. 6
Cloud		Ci. 7	Ci. 10	Ci. 10	Ci. 5	Ci. 2	Ci. 3	Ci. 5	Ci. 5
Weather		C	R	R	B	B	B	B	B

310선 해 양 관 측 성 적

Oceanographic Data, Line 310

Date		April			
St No.		03	04	05	06
Day		21	21	21	21
Item	Time / Z(m)	1420	1300	1100	0925
T ℃	0	—	—	—	—
	10	8.67	8.68	8.72	9.30
	20	7.07	8.08	78.5	8.85
	30	—	8.18	7.76	8.60
	50	—	7.06	7.13	8.45
	Botm.	6.87	6.68	6.94	7.26
S ‰	0	31.73	31.92	—	32.32
	10	31.95	31.92	32.34	32.34
	20	32.15	31.96	32.36	32.47
	30	—	—	32.36	—
	50	—	—	32.41	—
	Botm.	32.17	31.97	32.45	32.47
Depth(m)		40	68	70	
Secchi(m)		—	7	7	—
Color		—	—	—	—
Sea		5	4	4	—
Swell		3	3	3	—
Air Temp. (°C)		11.3	10.4	10.7	—
Barc. (mm)		1056	1060	1080	—
Wind		ES. 1	ES. 1	ES. 1	—
Cloud		Ci. 10	Ci. 10	Ci. 10	—
Weather		R	R	R	—

Date		November					
St No.		03	04	05	06	07	08
Day		3	3	3	3	3	3
Item	Time / Z(m)	0635	0800	0935	1100	1240	1400
T ℃	0	17.0	16.00	16.80	17.0	16.70	17.0
	10	17.36	16.21	16.92	16.58	17.11	17.92
	20	—	17.73	16.94	16.71	17.53	16.82
	30	—	17.13	17.01	16.74	17.02	16.70
	50	—	—	16.92	16.64	14.49	16.73
	Botm.	17.34	14.75	16.15	13.10	9.35	8.57
S ‰	0	32.79	33.06	33.51	33.57	33.53	33.55
	10	33.28	32.88	33.53	33.71	33.46	33.53
	20	—	33.48	33.51	33.57	33.48	33.67
	30	—	33.42	34.44	33.51	33.53	33.71
	50	—	—	33.53	33.67	33.65	33.75
	Botm.	32.85	33.87	34.15	33.96	33.34	34.18
Depth(m)		—	56	60	76	76	79
Secchi(m)		23	8	12	12	12	19
Color		—	7	5	5	5	4
Sea		3	3	3	3	2	2
Swell		2	1	1	1	1	1
Air Temp. (°C)		135	16.0	17.0	16.50	18.0	19.0
Baro. (mm)		1019	10.20	1020	1020	1020	1018
Wind		NW	NW	NW	NW	NW	NW
Cloud		Ci. 1	Ci. 1	Ci. 1	Ci. 1	Ci. 1	Ci. 5
Weather		B	B	B	B	B	B

309선 해 양 관 측 성 적

Oceanographic Data, Line 309

Date		April				
St No.		03	04	05	06	07
Day		23	23	23	23	23
Item	Time / Z(m)	0945	1110	1440	1605	0525
T ℃	0	—	—	—	—	—
	10	8.72	8.33	9.47	9.36	9.43
	20	7.08	9.24	9.75	8.94	8.30
	30	—	7.35	10.31	9.91	9.97
	50	—	—	7.29	7.23	8.08
	Botm.	6.91	7.30	6.89	6.89	7.44
S ‰	0	32.03	32.22	32.19	32.22	—
	10	32.05	32.22	32.21	32.35	—
	20	32.05	32.22	32.27	32.28	—
	30	—	32.22	32.27	32.25	—
	50	—	—	32.27	32.26	—
	Botm.	32.06	32.21	32.28	32.37	—
Depth(m)		48	56	70	72	75
Secchi(m)		7	5	7	7	8
Color		—	—	—	—	—
Sea		1	1	2	3	3
Swell		—	—	1	2	2
Air Temp(°C)		12.7	11.0	11.4	11.7	11.7
Baro(mm)		1010	1010	1016	1010	1008
Wind		ES. 1	ES. 1	ES. 1	ES. 1	ES. 1
Cloud			Ci	Ci. 2	Ci. 7	Ci. 3
Weather		B	B	B	B	B

Date		November							
St No.		01	02	03	04	05	06	07	08
Day		4	4	4	4	3	3	3	3
Item	Time / Z(m)	0510	0300	0135	2355	2225	2040	1910	1745
T ℃	0	16.50	16.50	15.50	15.10	16.10	16.00	16.50	16.80
	10	17.04	17.04	16.03	16.12	16.11	16.43	16.52	17.03
	20	—	16.99	16.02	15.71	16.11	16.33	16.96	16.98
	30	—	—	16.03	15.81	16.10	16.33	17.03	16.93
	50	—	—	—	1	15.85	14.07	14.79	16.66
	Botm.	17.04	16.94	15.91	15.41	15.25	14.26	10.76	14.39
S ‰	0	33.60	33.55	33.73	33.75	33.61	34.92	33.56	33.42
	10	33.60	33.57	33.62	33.69	33.59	33.63	33.40	33.37
	20	—	33.50	33.69	33.73	33.77	33.64	33.41	33.38
	30	—	—	33.70	33.60	33.69	33.60	33.40	33.42
	50	—	—	—	—	33.75	33.80	33.86	33.62
	Botm.	33.55	33.48	33.73	33.73	33.87	33.80	34.15	33.93
Depth(m)		25	35	53	53	62	65	71	75
Secchi(m)		—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—
Sea		2	1	1	1	1	1	1	1
Swell		0	0	0	0	0	0	0	0
Air Temp(°C)		13.5	14.0	14.0	13.5	14.5	14.1	13.30	—
Baro. (mm)		1018	1018	1019	1019	1019	1019	1019	1018
Wind		NE	NE	NE	NE. 1	NE. 1	NE. 1	N	NE
Cloud		Ci. 8	Ci. 9	Ci. 9	Ci. 8	Ci-Cu. 8	Ci-Cu. 7	Ci. 4	Ci-Cu. 8
Weather		C	C	C	C	BC	BC	BC	C

308선 해 양 관 측 성 적

Oceanographic Data Line, 308

Date		April					
St No.		02	03	04	05	06	07
Day		25	24	24	24	24	23
Item	Time / Z(m)	0810	1200	0810	0135	2400	2230
T ℃	0	—	—	—	—	—	—
	10	8.14	9.34	8.35	7.70	8.43	8.71
	20	7.09	6.81	6.31	6.58	9.09	7.37
	30	—	—	—	7.77	6.64	8.90
	50	—	—	—	6.83	—	6.68
	Botm.	7.04	9.59	6.70	6.69	6.48	6.49
S ‰	0	31.91	31.87	32.10	32.00	32.21	31.92
	10	31.60	31.93	31.94	32.07	32.21	32.23
	20	31.88	31.96	32.00	32.10	32.22	32.22
	30	—	—	—	32.10	32.23	32.22
	50	—	—	—	32.10	—	32.28
	Botm.	31.76	31.98	31.99	32.10	32.23	32.28
Depth		34	41	40	56	52	70
Secchi(m)		4	7.5	7	—	—	—
Color		—	—	—	—	—	—
Sea		1	2	2	2	3	3
Swell		0	1	1	1	2	2
Air Temp(°C)		10.6	10.5	10.1	10.2	11.3	10.5
Baro. (mm)		1009	1009	1010	1010	1010	1010
Wind		ES. 1	ES. 1	ES. 1	ES. 1	ES. 1	ES. 1
Cloud		Cu. 7	CiCu. 5	Ci. 0	Ci. 5	Ci. 5	Ci. 2
Weather		B	B	R	B	B	B

Date		November							
St No.		01	02	03	04	05	06	07	08
Day		4	4	4	4	5	5	5	5
Item	Time / Z(m)	0900	1025	1200	1230	0720	0900	1030	1250
T ℃	0	16.50	17.00	17.0	16.50	15.10	15.10	16.60	16.80
	10	—	16.91	16.87	16.47	16.32	16.37	16.42	16.83
	20	—	—	16.83	16.36	16.32	16.37	16.42	16.80
	30	—	—	16.86	16.32	16.31	16.36	16.47	16.78
	50	—	—	—	—	—	16.39	16.50	16.20
	Botm.	16.40	16.86	16.83	16.31	15.80	16.54	16.65	16.22
S ‰	0	33.42	33.78	33.69	33.73	33.69	33.78	33.64	33.42
	10	—	33.67	33.64	33.60	33.69	33.73	33.47	33.40
	20	—	—	33.64	33.66	33.69	33.73	33.49	33.48
	30	—	—	33.67	33.71	33.64	33.73	33.60	33.40
	50	—	—	—	—	—	33.59	33.55	33.07
	Botm.	33.69	33.66	33.66	33.73	33.89	33.77	33.60	33.57
Depth(m)		16	23	44	50	52	63	70	73
Secchi(m)		7	3	5	12	12	13	12	14
Color		—	—	6	5	4	4	4	3
Sea		1	7	2	2	—	1	1	2
Swell		—	1	0	1	—	1	1	1
Air Temp(°C)		16.5	17.0	17.0	17.9	17.9	1	18.2	—
Baro. (mm)		1020	1020	1019	1019	1019	1022	1022	1021
Wind		W.	SW.	SW.	SW.	SW.	SE. 1	SE	SE
Cloud		Ci. 6	Ci. 1	Ci. 1	Ci. 1	Ci. 1	Ci. 1	Ci. 1	Ci. 1
Weather		BC	B	B	B	B	B	B	B

307선 해 양 관 측 성 적

Oceanographic Data Line, 307

Date		April				September		
St No.		02	04	05	06	07	06	08
Day		25	27	27	27	27	2	5
Item	Time / Z(m)	1445	0645	0815	1015	1115	1336	1820
T ℃	0	—	—	—	—	—	26.1	27.1
	10	10.46	7.39	7.39	8.30	8.35	—	—
	20	7.04	—	5.25	7.45	5.31	—	—
	30	—	—	—	5.78	—	—	—
	Botm.	6.64	6.16	5.58	5.71	5.19	11.55	11.04
S ‰	0	31.45	31.34	31.44	—	31.58	31.91	31.70
	10	31.41	31.39	31.44	—	—	—	—
	20	31.42	—	31.54	—	31.58	—	—
	30	—	—	—	—	31.76	—	—
	Botm.	31.42	31.41	31.79	—	31.77	33.96	32.37
Depth(m)		43	26	48	58	59	55	65
Secchi(m)		2	2	8	8	7	15	12
Color		—	—	—	—	—	1	3
Sea		1	5	5	5	5	—	—
Swell		0	3	3	3	3	—	—
Air Temp(°C)		11.2	8.6	9.3	11.5	13.1	—	—
Baro. (mm)		1004	1003	1004	1005	1005	—	—
Wind		—	—	—	—	—	—	—
Cloud		St. 5	St. 10	St. 10	St. 5	St. 6	—	—
Weather		C	C	C	B	B	—	—

Date		November					
St No.		03	04	05	06	07	08
Day		6	5	5	5	5	5
Item	Time / Z(m)	0210	2315	2140	2005	1825	1645
T ℃	0	16.10	16.50	15.50	15.50	15.00	16.50
	10	16.59	16.52	16.14	15.94	16.37	16.14
	20	16.67	—	16.22	15.91	15.76	16.02
	30	16.65	—	16.12	15.35	15.89	15.97
	50	—	—	—	—	—	12.51
	Botm.	16.66	16.37	15.56	15.06	15.10	12.48
S ‰	0	33.15	33.26	33.71	33.11	33.33	33.55
	10	33.06	33.29	33.60	33.00	33.69	33.39
	20	33.12	—	33.62	33.00	33.66	33.46
	30	33.12	—	33.60	33.87	33.60	33.55
	50	—	—	—	—	—	33.33
	Botm.	33.12	33.21	33.85	33.98	33.15	33.33
Depth(m)		45	23	45	46	53	63
Secchi(m)		—	—	—	—	—	11.5
Color		—	—	—	—	—	3
Sea		3	2	2	2	3	3
Swell		1	1	1	1	1	1
Air Temp(°C)		14.2	14.5	14.5	14.0	16.0	17.6
Baro. (mm)		1018	1018	1018	1018	1018	1019
Wind		E	S	S	S	S	S.3
Cloud		Ci. 10	Ci. 5	Ci. 5	Ci. 4	Ci. 8	Ci. 8
Weather		C	BC	BC	BC	C	C

306선 해 양 관 측 성 적

Oceanographic Data Line, 306

Date		April						
St No.		01	02	03	04	05	06	07
Day		28	27	27	27	27	27	27
Item	Time / Z(m)	0720	2230	2045	1910	1740	1630	1500
T ℃	0	—	—	—	—	—	—	—
	10	7.91	7.78	7.79	8.09	8.01	8.26	7.68
	20	7.65	7.66	7.45	—	—	7.32	7.23
	30	—	—	—	—	—	—	6.58
	Botm.	7.61	7.50	7.29	7.75	7.63	6.68	6.28
S ‰	0	31.31	31.35	31.45	31.48	31.44	31.41	31.37
	10	31.31	31.31	31.32	31.46	31.44	31.41	31.42
	20	31.31	31.30	31.34	—	—	31.34	31.42
	30	—	—	—	—	—	—	31.42
	Botm.	31.30	31.31	31.35	31.42	31.43	31.35	31.46
Depth(m)		40	38	34	20	24	43	56
Secchi(m)		—	—	—	1	2	4	4
Color		—	—	—	—	—	—	—
Sea		2	1	2	2	2	2	2
Swell		1	0	1	1	1	1	1
Air Temp(°C)		10.1	10.6	10.0	10.7	10.6	11.9	12.8
Baro.(mm)		1007	1005	1005	1005	1005	1005	1005
Wind		—	—	—	—	—	—	—
Cloud		St. 10	St. 3	St. 3	St. 4	St. 3	St. 3	St. 3
Weather		C	BC	BC	BC	B	B	B

Date		November				
St No.		04	05	06	07	08
Day		9	9	9	9	9
Item	Time / Z(m)	0540	0720	0855	1035	1215
T ℃	0	14.60	15.20	15.50	16.00	16.0
	10	15.42	15.36	15.57	15.71	15.45
	20	—	15.39	15.78	15.65	15.30
	30	—	—	—	15.71	15.35
	50	—	—	—	—	15.21
	Botm.	15.43	15.41	15.80	15.24	13.58
S ‰	0	32.81	32.85	33.31	33.33	33.39
	10	32.65	32.67	33.17	33.34	33.37
	20	—	32.86	33.30	33.48	33.35
	30	—	—	—	33.57	33.26
	50	—	—	—	—	33.38
	Botm.	32.59	32.83	33.33	33.58	33.00
Depth(m)		25	36	38	47	62
Secchi(m)		2	—	5	11	12
Color		—	—	—	4	3
Sea		2	2	6	1	1
Swell		1	1	—	1	1
Air Temp(°C)		14.5	15.5	16.4	17.0	17.8
Baro. (mm)		1017	1017	1018	1018	1017
Wind		NW.	NW.	W.	SE.	SE.
Cloud		Ci. 6	Cu. 9	Cu. 9	Ci. 2	Ci. 2
Weather		BC	C	C	B	B

제 4 편
부유생물 조사 성적

PART 4
PLANKTON DATA

1966

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浮游生物의 採集 및 調査方法

浮游生物의 採集은 本院 및 海區試驗所에서 韓國近海의 既定된 海洋 觀測點에 따라 一般海洋觀測과 同時에 採集하였으며 그 結果는 다음 表와 같다.

1. 採集網 및 方法

採集網은 Marutoku B type Plankton Net 및 Norpac Net를 使用하여 定量調査하였으며 採集水層은 水深이 깊은 東海側은 150*m*에서 表面까지 水深이 얕은 西海 및 南海의 150*m* 미만인 곳은 底層에서 表面까지 1*m*/sec의 速度로서 垂直 採集하여 約 5%의 中性훈마링으로 固定하였다.

2. 採集된 試料의 處理方法

上記와 같이 採集한 試料에 對해서 大型인 腔腸類 및 甲殼類를 除去하고 容積 測定法에 依한 沈澱量과 重量 測定法에 따른 濕重量을 測定하여 그 量을 表示하였다.

定量測定後 試料는 標本 分割器로서 等分割하여 그 一部를 顯微鏡下에서 관찰하였으며 種類別 出現 및 詳細한 Plankton學的인 硏究는 硏究報告書에 述記키로 하고 여기서는 目 또는 屬別로 計數表示하였다.

Plankton Collections and Procedures

Plankton Samples were collected at the hydrographic stations of the sectional lines made in the adjacent waters of Korea. The methods applied for collecting and treating the samples and the gears are as follows.

1. Method of collecting plankton;

Plankton samples were collected by the vertical haul with the Marutoku net B type and the Norpac net. General depth of haul is from an estimated depth of 150 or 50 meters to the surface, and the speed of hauling is approximately one meter per second. The samples obtained from the net were immediatly preserved in three-five percent neutral formalin in the preserving bottle of plankton and taken to the laboratory for examinations.

2. Laboratory procedures;

For quantitative examination of plankton, the settling volme and the wet-weight measurements were in removing large planktons, such as Hydromedusae, Scyphomedusae and Doliolum. In separating the plankton, the subsamples were made by whirring apparatus, and counted by genus or order under the binocular and the microscope.

Remark: Some samples were measured in settling volumes and in biomass only

동 해 부 유 생 물 조 사 성 적

PLANKTON DATA
EASTERN WATERS

1 9 6 6

107선 부유생물조사표

Plankton Data, Line 107

Month	May						
Station	01	02	03	04	05	06	07
Date	11	11	11	11	11	11	11
Time	0620	0708	0810	0935	1120	1315	1510
Collected depth(m)	50	50	50	50	50	50	50
Volume(cc)	0.5	7.0	12.0	1.5	3.0	3.5	1.0
Biomass(mg/m^3)	0.6	231.8	165.3	36.6	36.5	136.1	18.5
Rate of subsample	—	—	—	—	—	—	—
No. of total organsims	—	—	—	—	—	—	—
No. of totcl the other organisms	—	—	—	—	—	—	—

Month	November					
Station	01	02	03	04	05	06
Date	6	6	7	7	7	7
Time	0940	1030	0855	1015	1215	1415
Collected depth(m)	50	50	50	50	50	50
Volume(cc)	0.4	0.4	1.0	0.5	0.2	2.0
Biomass(mg/m^3)	5.7	6.7	2.8	4.5	9.1	6.9
Rate of subsample	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—

106선 부유생물조사표

Plankton Data, Lin 106

Month	April						
Station	03	04	05	07	09	11	13
Date	5	5	6	6	6	7	7
Time	1430	1655	1230	1630	2040	0200	0705
Collected depth(m)	200	200	200	200	200	200	200
Volume(cc)	5	14	6	16	6	16	44
Biomass(mg/m^3)	25.9	63.3	28.4	154.9	113.7	340.0	1133.0
Rate of subsample	1/64	1/32	1/16	1/32	1/32	1/32	1/64
No. of total organisms	197	154	275	245	117	60	170
No. of total the other organisms	—	—	—	—	—	—	—
ZOOPLANKTON							
Calanus	11	26	42	15	21	13	24
Eucalanus			1				1
Paracalanus	54	36	90	10	22	9	29
Clausocalanus	10	2	2	37	15		7
Ctenocalanus	2	5	1	5	3		1
Pseudocalanus	1	8	62	3	5	2	14
Euchaeta	2	1	1				
Pareuchaeta							
Scolecithricella	3		4	1		5	5
Scolecithrix							
Centropages	5	1	11	15			
Metridia				2	3	9	8
Candacia		1					
Acartia				4			
Tortanus							
Oithona	5	13	14	6	2	8	9
Oncaea	1	1		1			2
Corycaeus	8	6	9	9	2		
Copepoda larva	10	3	12	8	5	2	8
Oikopleura	10	12	1	2	2		1
Evadne							
Conchoecia	3			3	5	5	1
Polychaeta		1					
Fish larva							
Pelagic egg	43	15	7	1	1		
Amphipoda				2	2	2	1
Euphausia	8	7	10	1			
Brachyura			1				
Pteropoda				4	1	1	3
Sagitta	21	16	7	116		9	56

Month	May					
Station	02	03	04	05	06	07
Date	12	12	12	12	12	11
Time	1040	1135	1240	1440	1645	2010
Collected depth(m)	50	50	50	50	50	50
Volume(cc)	14	2	28	27	3	4
Biomass(mg/m^3)	436.9	69.0	1026.4	991.1	63.0	115.7
Rate of subsample	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—

Month	July						
Station	02	03	04	05	09	11	13
Date	15	15	15	15	16	16	16
Time	1330	1535	1715	2210	0610	1140	1555
Collected depth(m)	50	150	150	150	150	150	150
Volume(cc)	0.7	10	25	12	3	10	7
Biomass(mg/m^3)	14.3	95.8	194.1	132.5	15.3	99.2	56.3
Rate of subsample	1/8	1/32	1/64	1/32	1/16	1/16	1/16
No. of total organisms	254	792	432	300	192	343	328
No. of total the other organisms	—	—	—	—	—	—	—
ZOOPLANKTON							
[illegible]	28	35	26	8	9	54	65
Eucalanus	2	1					
Paracalanus	29	36	11	64	77	15	17
Clausocalanus		2			42	1	1
Ctenocalanus							
Pseudocalanus	122	165	31	9		17	2
Euchaeta		1				4	3
Pareuchaeta				2			
Scolecithricella	1		6	6	1	6	5
Scolecithrix							1
Centropages							
Metridia	11	148	128	28	11	6	20
Candacia				3	1		
Acartia			1	31	19		
Tortanus	1	1					
Oithona	5	3		5	4	9	4
Oncaea			1	2	4		
Corycaeus	3	4		5	2		1
Copepoda larva		12	3	5		1	3
Oikopleura	3	3		1		17	59
Evadne				3	1		
Conchoecia	1			5			
Polychaeta							
Fish larva				1			
Pelagic egg	34		24	11	1		3
Amphipoda	2			3		2	
Euphausia	3			15	1		2
Brachyura							
Pteropoda					2	1	3
Sagitta	9	381	201	93	17	210	136

Month	November					
Station	02	03	04	05	06	07
Date	8	8	7	7	7	7
Time	0130	0020	2315	2120	1910	1715
Collected depth(m)	50	50	05	50	50	50
Volume(cc)	1.5	3.0	3.0	0.2	1.0	1.0
Biomass(mg/m^3)	51.0	102.0	120.4	13.8	30.3	6.3
Rate of subsample	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—

105선 부유생물조사표

Plankton Data, Line 105

Month	April					
Station	04	05	07	09	11	13
Date	2	2	2	2	2	2
Time	2205	2030	1530	0950	0450	0030
Collected depth(m)	200	200	200	200	200	200
Volume(cc)	18	25	9	7	20	3
Biomass(mg/m^3)	102.5	62.7	45.4	201.6	322.5	44.5
Rate of subsample	1/16	1/32	1/16	1/16	1/32	1/8
No. of total organisms	96	165	62	395	317	160
No. of total the other organisms	—	—	—	—	—	—
ZOOPLANKTON						
Calanus	3	21	47	84	33	13
Eucalanus	1			1		1
Rhincalanus		1				
Paracalanus	30	28	2	58	13	11
Acrocalanus						
Clausocalanus		3		20		
Ctenocalanus	1			12	4	11
Pseudocalanus	8	1	4	94	144	45
Euchaeta	1	1			1	
Pareuchaeta		1				1
Scolecithricella	2	9	4	3	11	4
Centropages		1				
Metridia	25	24	1	25	59	41
Candacia		1				
Labidocera						
Acartia	1			1		1
Oithona	2	1		5	14	3
Oncaea				1		
Corycaeus	4	8		3		1
Copepoda larva	5	4	1	11	17	7
Oikopleura	1	3		6	4	1
Penilia						
Evadne						
Conchoecia	7	3			4	9
Polychaeta			1			
Pelagic egg		35		2		
Fish larva		1				
Amphipoda				2	3	2
Euphausia	4	8	1	3	1	2
Muggiaea						
Fritillaria						
Pteropoda				4	7	2
Sagitta	1	11	1	60	2	5

Month	May					
Station	03	06	07	08	09	10
Date	13	13	13	13	13	13
Time	0750	1124	1315	1513	1710	1900
Collected depth(m)	45	50	50	50	50	50
Volume(cc)	13	3	7	3	3	5
Biomass(mg/m^3)	406.4	67.0	147.8	57.0	55.0	91.2
Rate of subsample	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—

Month	July						
Station	03	04	05	07	09	11	13
Date	17	17	17	17	17	17	16
Time	1750	1645	1458	1120	0620	0130	2030
Collected depth(m)	40	150	150	150	150	150	150
Volume(cc)	1.5	5	3	4	4	13	7
Biomass(mg/m^3)	28.3	47.3	22.5	38.7	26	142.3	82.5
Rate of subsample	1/16	1/16	1/16	1/16	1/16	1/32	1/16
No. of total organisms	182	539	298	373	237	218	322
No. of total the other organisms	—	—	—	—	—	—	—
ZOOPLANKTON							
Calanus	12	21	22	46	13	8	17
Eucalanus							
Rhincalanus							
Paracalanus	79	223	112	101	13	10	30
Acrocalanus	1						
Clausocalasnus	2	3	1	1	10	2	14
Ctenocalanus							
Pseudocalanus	16	13	4	7	3	2	
Euchaeta	1	3	5			1	2
Pareuchaeta					1	3	1
Scolecithricella		17	11	1	11	1	10
Centropages							
Metridia	11	23	7	8	99	70	8
Candacia	1	1		2			1
Labidocera					4		2
Acartia	32	32	18	23	2	2	2
Oithona	1	23	7	11	9	1	14
Oncaea		1				1	5
Corycaeus	2	8	2	4	2	2	6
Copepoda larva	1	1	2	14	1		
Oikopleura	2	24	11	3	29	3	23
Penilia							14
Evadne		1					
Conchoecia	1	1		3	1	4	1
Polychaeta	5						
Pelagic egg		15	7	70		4	20
Fish larva						1	3
Amphipoda	5	4	7	2	3	2	4
Euphausia	1	5	2	8			4
Muggiaea				1			
Fritillaria							1
Pteropoda					2	1	1
Sagitta	17	120	70	68	34	100	139

Month	November							
Station	03	04	05	06	07	08	09	10
Date	10	10	10	10	10	10	10	10
Time	0803	0845	0945	1140	1335	1530	1730	1930
Collected depth(m)	50	50	50	50	50	50	50	50
Volume(cc)	0.05	0.8	0.2	0.1	0.3	0.1	2.5	3.0
Biomass(mg/m^3)	1.0	10.5	10.5	2.4	6.0	6.3	53.5	96.5
Rate of subsample	—	—	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—

104선 부유생물조사표

Plankton Data, Line 104

Month	March									
Station	40	05	07	09	11	13	15	17	19	21
Date	30	30	30	30	31	31	31	1	1	1
Time	1255	1453	1750	2300	0400	0945	1450	0200	0650	1040
Collected depth(m)	100	220	200	200	200	200	200	200	200	200
Volume(cc)	4.8	18.0	12.5	27.5	33.0	32.0	20.0	8.5	9.0	11.0
Biomass(mg/m³)	53.0	123.9	223.8	456.2	413.7	647.5	302.6	108.2	228.7	156.3
Rate of subsample	1/16	1/32	1/32	1/32	1/32	1/32	1/64	1/64	1/16	1/32
No. of total orgcnisms	251	131	261	243	228	338	298	188	187	295
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	18	11	39	56	37	20	28	26	15	36
Eucalanus		1								
Rhincalanus								1		
Paracalanus	148	2	62	6	11	77	31	17	23	69
Acrocalanus										
Calocalanus										
Clausocalanus	3		14	1	7	30	16	21	7	28
Ctenocalanus	2	1	7	1	5	12	7	10	16	16
Pseudocalanus	13	2	8	20	3	6	27		8	14
Euchaeta	3	2								
Pareuchaeta		1		2						
Scolecithricella	3	9	4	5	6		6	6	1	
Centropages	1									
Metridia	8	23	73	99	93	78	69	43	58	22
Pleuromamma										
Temora										
Candacia										
Labidocera										
Acartia	1					1				1
Oithona	1	4	3	6	4	7	6	3	6	7
Clytemnestra										
Oncaea		1				1		1		6
Corycaeus	12	7	7		4	13		5	7	13
Copepoda larva	2	1	4	9	6	4	7	4	4	2
Euphausia	19	4	4	3	1		1	2	1	2
Oikopleura		12	5	1		13	3	5	4	6
Podon										
Penilia										
Evadne										
Conchoecia		12	9	15	3	1	1	2	1	2
Fritillaria										2
Fish larva										
Pelagic egg	3	5		3	10			1		1
Shell larva										
Amphipoda	1	1	2	6	2	3	1	1		1
Lucifer										
Salpa		1								
Aglaura						4				
Pteropoda		1	3		3	3	3	1		2
Sagitta	13	30	17	10	33	65	91	39	37	48

Month	May						
Station	04	05	06	07	08	09	10
Date	14	14	14	14	14	14	14
Time	1920	1750	1620	1418	1220	1010	0820
Collected depth(m)	50	50	50	50	50	50	50
Volume(cc)	3	14	10	6	7	7	0.5
Biomass(mg/m^3)	32.5	96.0	204.6	146.4	177.1	195.8	7.2
Rote of subsample	—	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—

Month	July								
Station	04	05	07	11	13	15	17	19	21
Date	18	18	18	18	18	18	18	18	19
Time	0120	0220	0140	1500	1920	2300	0200	0550	1020
Collected depth(m)	100	150	150	150	150	150	150	150	150
Volume(cc)	3.5	10.0	37.0	0.5	5.0	5.0	7.5	6.0	8.0
Biomass(mg/m^3)	50.5	65.2	—	35	52.3	35.5	78.3	30.5	51.5
Rate of subsample	1/16	1/16	1/32	1/16	1/32	1/8	1/16	1/16	1/32
No. of total organisms	333	301	380	339	411	255	278	132	404
No. of total the other organisms	—	—	—	—	—	—	—	—	—
ZOOPLANKTON									
Calanus	34	18	35	7	33	8	12	32	59
Eucalanus						1			2
Rhincalanus			3						
Paracalanus	174	190	34	36	52	25	24	13	17
Acrocalanus			1						
Calocalanus				1	1	1			1
Clausocalanus	4	1	17	33	21	17	31	12	14
Ctenocalanus		1	5	7	3	8	1	2	7
Pseudocalanus	14	6	8			2			
Euchaeta		2	2	1		1			
Pareuchaeta									
Scolecithricella	4	10	6	3	2	9	8	10	1
Centropages				1					
Metridia	38	31	3		1	22	56	22	7
Pleuromamma						4			
Temora			3	1	1				1
Candacia			3	3	3	3			3
Labidocera			1	2					
Acartia	14	10	4	3	2	2	8	1	2
Oithona	7	2	17	13	10	19	10	6	5
Clytemnestra				1		1			
Oncaea			4	8	3	5	3		1
Corycaeus	2	1	9	10	4	3	3		5
Copepoda larva			1		1				
Euphausia	1		2	5	3	6		2	3
Oikopleura	1	2	2	12	14	7	10	5	9
Podon			2						
Penilia			98	24			1		46
Evadne			3	6			1		1
Conchoecia			2	2	2	10			2
Fritillaria									
Fish larva	1		2			4			
Pelagic egg			79	26	32	24	9	5	17
Shell larva			2	1		4	1		1
Amphipoda	3	7	4	6	2	2		2	6
Lucifer			2						
Salpa									
Aglaura									
Pteropoda									
Sagitta	36	20	26	127	221	67	99	20	198

Month	November						
Station	04	05	06	07	08	09	10
Date	11	11	11	11	11	11	10
Time	0830	0730	0605	0510	04	0120	2315
Collected depth(m)	50	50	50	50	50	50	50
Volume(cc)	0.9	0.5	4.5	1.0	5.0	3.5	1.5
Biomass(mg/m^3)	37.0	19.5	162.4	46.3	173.9	98.7	32.3
Rate of subsample	—	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—

103선 부유생물조사표

Plankton Data, Line 103

Month	March						May			
Station	04	05	07	09	11	13	04	07	08	09
Date	28	28	28	28	28	28	17	17	17	18
Time	1840	1945	2250	1850	0850	0150	0549	0910	1100	1310
Collected depth(m)	100	150	200	200	200	200	50	50	50	50
Volume(cc)	1	13	5	18	7	10	1	3	7	3
Biomass(mg/m³)	25.9	82.5	31.0	326.5	105.2	109.0	9.9	131.6	60.5	66.1
Rate of subsample	1/4	1/64	1/32	1/32	1/32	1/64	—	—	—	—
No. of total organisms	135	126	110	344	316	100	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	3	9	8	19	31	9				
Eucalanus					3					
Paracalanus	26	25	24	20	41	9				
Clausocalanus	1			2	15	2				
Ctenocalanus			1	5	17	4				
Pseudocalanus				24	37	2				
Euchaeta		1	1	3						
Pareuchaeta			1			2				
Scolecithricella		3	2		2	1				
Centropages	1									
Temora										
Metridia	4	13	3	16	63	26				
Lucicutia										
Candacia		1								
Acartia	1	2								
Oithona	2	5	6	12	10					
Setella					1					
Oncaea				3	3	1				
Corycaeus	3	4	8	5	3	1				
Copepoda larva	1	3	1	10	30	4				
Oikopleura	3	3	1	12	3	2				
Penilia										
Evadne										
Conchoecia	1	2	5			2				
Polychaeta			1							
Fish larva			1							
Pelagic egg	85	2	3	88	2	1				
Shell larva										
Amphipoda				1	2	7				
Euphausia	1	13	29	2	2	8				
Lucifer										
Muggiaea										
Fritillaria										
Brachyura	1									
Pteropoda				3	3	1				
Sagitta	3	39	15	119	48	18				

Month	July				
Station	04	05	07	09	11
Date	24	24	24	24	21
Time	1120	1240	1620	1940	2200
Collected depth(m)	100	150	150	150	150
Volume(cc)	7	20	3.5	10	20
Biomass(mg/m^3)	78.3	124.3	27.8	76.5	151.0
Rate of subsample	1/32	1/32	1/16	1/32	1/64
No. of total organisms	466	352	211	280	369
No. of total the other organisms	—	—	—	—	—
ZOOPLANKTON					
Calanus	16	20	5	1	7
Eucalanus				4	
Paracalanus	341	105	81	26	17
Clausocalanus	1	3		6	2
Ctenocalanus		6	1	6	3
Pseudocalanus	12	36	1		
Euchaeta		1	3		1
Pareuchaeta				2	
Scolecithricella	9	7	11	5	6
Centropages				1	
Temora					3
Metridia	9	38	22	5	19
Lucicutia				1	
Candacia				1	1
Acartia	8	5	13	2	3
Oithona	7	3	8	34	16
Setella					
Oncaea	1			4	1
Corycaeus			3	4	1
Copepoda larva			5		1
Oikopleura			5	12	7
Penilia				50	69
Evadne				35	1
Conchoecia				4	5
Polychaeta					
Fish larva				1	3
Pelagic egg			7	28	19
Shell larva	1				
Amphipoda			2	1	4
Euphausia	1		1	6	1
Lucifer				1	
Muggiaea			3		
Fritillaria				7	
Brachyura					
Pteropoda					
Sagitta	60	128	40	33	198

November						
04	05	06	07	08	09	10
16	16	16	16	16	16	16
0820	0908	1030	1200	1345	1540	1735
50	50	50	50	50	50	50
1	0. 2	0. 05	0. 8	2. 5	2	7
48. 6	13. 2	9. 5	29. 0	54. 7	68. 8	104. 2
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

102선 부유생물조사표

Plankton Data, Line 102

Month	March					
Station	04	05	07	09	11	13
Date	27	27	27	27	27	27
Time	0400	0535	0825		1800	2355
Collected depth(m)	150	150	200	200	200	200
Volume(cc)	0.2	9	4	8	13	30
Biomass(mg/m^3)	6.3	103	16.5	145.1	130.6	247.7
Rate of subsample	1/8	1/16	1/64	1/32	1/32	1/64
No. of total organisms	65	95	151	277	263	223
No. of total the other organisms	—	—	—	—	—	—
ZOOPLANKTON						
Calanus	9	15	3	32	20	40
Eucalanus		1		1		
Paracalanus	24	30	20	61	20	12
Acrocalanus						
Clausocalanus			5	26	48	2
Ctenocalanus	1	4	6	12	11	1
Pseudocalanus	1			34	2	18
Euchaeta		1				
Pareuchaeta						2
Scolecithricella		3		6	1	3
Scolecithrix				1		
Centropages		1				
Temora						
Metridia	1	4	1	27	35	86
Lucicutia						
Candacia					1	
Acartia	1	1				
Oithona	9	2	16	6	12	3
Microsetella						
Clytemnestra						
Oncaea			1	2	1	
Corycaeus	8	7	8	8	8	6
Sapphirina	1					
Copepoda larva	3	4	12	3	2	3
Oikopleura	1	1	2	2	2	
Penilia						
Evadne						
Conchoecia	2	2	3		3	2
Polychaeta			1		1	
Fish larva						
Pelagic egg	2	6	10			4
Shell larva						
Amphipoda					2	2
Euphausia	2	2	31	8		1
Muggiaea		2				
Fritillaria						
Pteropoda				2	5	2
Sagitta		9	33	44	91	36
Pterosagitta						

May						
04	05	06	07	08	09	10
14	14	14	14	14	14	14
1315	1230	1110	0840	0645	0450	0230
50	100	150	150	150	150	150
3	6	12	17	18	22	14
32. 2	17. 0	47. 8	40. 1	58. 3	151. 5	87. 7
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Month	July				
Station	05	07	09	11	13
Date	22	22	25	25	25
Time	1140	0800	0030	0550	0945
Collected depth(m)	150	150	150	150	150
Volume(cc)	3	2	30	12	4
Biomass(mg/m^3)	84.3	15.7	—	41.9	31
Rate of subsample	1/8	1/8	1/64	1/32	1/8
No. of total organisms	197	248	452	323	569
No. of total the other organisms	—	—	—	—	—
ZOOPLANKTON					
Calanus	8	21	18	8	29
Eucalanus	2	1	5		
Paracalanus	31	33	54	11	43
Acrocalanus			1		
Clausocalanus		6	3	7	55
Ctenocalanus		2	9	1	14
Pseudocalanus	17				
Euchaeta	1	1	1		1
Pareuchaeta					
Scolecithricella	8	4		8	1
Scolecithrix					
Centropages				1	
Temora				2	1
Metridia	19	6	15	3	
Lucicutia		1		1	
Candacia		7	3	3	4
Acartia	1	7	3	1	7
Oithona	1	16	20	7	60
Microsetella				1	
Clytemnestra					1
Oncaea		4	2	4	2
Corycaeus	2	4	1	3	6
Sapphirina					
Copepoda larva	1	4	11		2
Oikopleura	1	1	3	3	9
Penilia		29	74	85	14
Evadne		37	6	10	1
Conchoecia	1	2	3	7	1
Polychaeta	1				1
Fish larva		3	5	1	
Pelagic egg	3	37	9	20	122
Shell larva	1			3	1
Amphipoda	2		4		6
Euphausia		1	35	13	8
Muggiaea			1		
Fritillaria		8	1	1	
Pteropoda					
Sagitta	96	12	165	122	180
Pterosagitta		1			

November						
04	05	06	07	08	09	10
10	10	10	10	10	10	10
1410	1510	1615	1820	0440	0240	0050
150	150	150	150	150	150	150
3. 8	4. 0	4. 5	11. 0	1. 3	6. 0	6. 5
83. 8	36. 9	57. 7	97. 4	15. 8	72. 6	85. 4
—	—	—	—	—	—	—
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남 해 부 유 생 물 조 사 성 적

PLANKTON DATA
SOUTHERN WATERS

1 9 6 6

209선 부유생물조사표

Plankton Data, Line 209

Month	March				
Station	04	05	08	10	12
Date	27	26	26	26	26
Time	0150	0020	1720	1325	1012
Collected depth(m)	50	150	150	100	100
Volume(cc)	0.1	12	3.0	5.0	3.0
Biomass(mg/m³)	174	31	20.8	49.8	22
Rate of subsample	57	165	182	134	136
No. of total organisms	1/4	1/4	1/16	1/32	1/16
No. of total the other organisms	—	—	—	—	—
ZOOPLANKTON					
Calanus	1	8	18	14	25
Undinula					
Eucalanus			1	4	4
Paracalanus	27	68	31	14	31
Acrocalanus					
Clausocalanus		2	1		7
Ctenocalanus		2	16	9	13
Calocalanus					
Pseudocalanus		1			
Euchaeta					1
Scolecithricella		2	3		1
Scolecithrix	1		1		
Centropages	1	3			
Metridia	2	1			1
Temora					
Lucicutia				1	2
Candacia		3	5	2	4
Labidocera					
Pleuromamma					
Tortanus					
Acartia	3	1	2	1	
Oithona	1	7	28	8	9
Clytemnestra					
Oncaea	2	3	3	5	4
Corycaeus	7	6	18	14	12
Copepoda larva		14	10	6	2
Oikopleura		5	5	1	
Podon					
Penilia					
Evadne					
Conchoecia	1	12	5	5	3
Polychaeta				2	
Fish larva					
Pelagic egg	10	21	1	1	3
Shell larva					
Brachyura					
Ophiopluteus					
Amphipoda					
Euphausia			6	3	4
Pandalid					
Lucifer					
Muggiaea		2	1	1	
Fritillaria				3	1
Salpa		3			
Sagitta		1	27	40	9
Penaeus					

May					
04	05	06	07	08	09
13	13	13	13	13	13
1035	1110	1350	1620	1820	2015
50	100	150	150	150	150
5	2	12	13	16	14
14.6	7.0	21.5	31.5	92.2	72.4
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Month	July					
Station	04	05	06	07	09	11
Date	26	26	26	26	26	25
Time	1120	0850	0905	0550	0100	2120
Collected depth(m)	50	130	100	150	100	150
Volume(cc)	11	6	5	3	5	7
Biomass(mg/m^3)	158.6	62.8	22.3	12.6	27.8	16
Rate of subsample	579	505	311	398	392	415
No. of totcl organisms	1/32	1/16	1/8	1/16	1/16	1/16
No. of total the other organisms	—	—	—	—	—	—
ZOOPLANKTON						
Calanus	15	34	12	13	6	15
Undinula				1	2	
Eucalanus						
Paracalanus	187	156	39	78	23	21
Acrocalanus				1		
Clausocalanus		1	1	5	15	18
Ctenocalanus	3		5	1	5	5
Calocalanus			1	1		2
Pseudocalanus	167	26				
Euchaeta		8	4			
Scolecithricella	2	1	2	1		
Scolecithrix						
Centropages			4		2	
Metridia						
Temora				2	1	3
Lucicutia			1			
Candacia			15	6	8	1
Labidocera					1	1
Pleuromamma			1			
Tortanus		1				
Acartia	2	65	10	9		6
Oithona	62	11	50	17	17	11
Clytemnestra					1	
Oncaea	1		6	5	6	7
Corycaeus	2	24	14	2	1	4
Copepoda larva	10		4	2		
Oikopleura		3	5	4	5	10
Podon		2				
Penilia		8	48	92	57	198
Evadne		1	22	51	33	3
Conchoecia		7				2
Polychaeta		1				
Fish larva		1	1	2	5	4
Pelagic egg		30	28	34	112	4
Shell larva			1	1	1	2
Brachyura			1			1
Ophiopluteus						1
Amphipoda		2	1		4	
Euphausia		12	10	1	11	
Pandalid						1
Lucifer						2
Muggiaea			1	2	1	
Fritillaria			2	4	2	8
Salpa				1		
Sagitta	128	111	22	59	79	80
Penaeus				2		3

November						
04	05	06	07	08	09	10
9	9	9	9	9	9	9
0835	0920	1206	1410	1620	1820	2010
50	100	150	150	150	150	100
1.5	5.0	8.0	5.0	2.0	5.5	5.0
59.1	56.6	120.2	53.0	19.1	49.2	76.2
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

208선 부유생물조사표

Plankton Data, Line 208

Month	March									
Station	01	02	03	04	05	06	07	08	09	10
Date	24	24	25	25	25	25	25	25	26	26
Time	.0900	1042	1545	1716	1840	2025	2350	2350	0140	0430
Collected depth(m)	50	100	150	100	100	100	100	100	100	100
Volume(cc)	0.2	0.3	0.1	2.0	1.5	0.1	1.0	0.5	3.0	5.0
Biomass(mg/m^3)	0.5	4.0	0.7	24.5	12.7	1.5	9.0	58.0	28.5	57.2
Rate of subsample	1/4	1/8	1/2	1/32	1/16	1/4	1/8	1/16	1/16	1/32
No. of total organisms	68	97	73	136	78	40	57	186	75	181
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	3	3	8	8	3	2	8	8	11	22
Undinula										
Eucalanus				1						3
Rhincalanus					4					1
Paracalanus	21	11	13	10	10	6	14	15	4	8
Acrocalanus										
Clausocalanus			1			1		4	1	6
Ctenocalanus		2	5	4		1	6	16		17
Microcalanus										
Pseudocalanus										
Calocalanus										
Nannocalanus										
Aetideus								1		1
Euchaeta		1	3	1				11	1	2
Scolecithricella				1						
Scolecithrix								2	4	1
Centropages	1	2			1					
Temoropia										
Mecynocera										
Temora										
Lucicutia							1			1
Candacia	4	6	1	3			1	5	1	1
Labidocera										
Oithona	5	6	3	5	2	1	2	8	7	10
Tortanus										
Acartia	3	3	2							1
Oncaea	3		9	4	3			4	5	16
Clytemnestra										
Corycaeus	7	8		4	11	5	5	5	2	3
Copepoda larva	10	2	4	6	2			2	6	7
Oikopleura				1	1			4	8	11
Penilia										
Evadne										
Conchoecia	1	3	3	7	1	4	1	24	8	7
Noctiluca										
Polychaeta								2	1	
Fish larva					1	1				
Pelagic egg	8	11	12	7	5		2	29	2	2
Shell larva										
Ophiopluteus				3						
Amphipoda						1	1			
Euphausia	7	10	8	13	10	6	12	10		1
Muggiaea					1				1	1
Fritillaria		28	8	29	10	11		18	13	33
Salpa										
Balanus										
Brachyura										
Pteropoda							4	1		
Sagitta		1	1	18	11	2		16		26
Pterosagitta										
Krohnitta										
Diphyes										
Trypaea										

May					
01	02	03	04	05	06
13	13	13	13	12	12
0600	0450	0300	0056	2320	2200
50	50	50	50	50	50
14	30	63	13	15	12
96.2	124.8	194.3	69.5	63.0	62.2
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Month	July									
Station	01	02	03	04	05	06	07	08	09	10
Date	26	26	26	26	26	27	27	27	27	27
Time	1420	1820	2000	2115	2230	2355	0215	0330	0520	0720
Collected depth(m)	50	100	100	150	150	100	100	100	100	100
Volume(cc)	1.2	2	3.8	4.2	9.5	0.2	7.5	7.5	6.5	6.5
Biomass(mg/m³)	38	18.3	14.8	17.4	38.1	7.9	33.1	22	24.5	37.8
Rate of subsample	1/8	1/8	1/16	1/32	1/32	1/8	1/32	1/32	1/16	1/32
No. of total organisms	403	274	479	337	423	203	360	240	379	362
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	15	20	12	7	6	10	6	4	21	10
Undinula			1	1						
Eucalanus							3	1	8	1
Rhincalanus						1		2		
Paracalanus	201	37	96	33	32	8	11	2	10	13
Acrocalanus										1
Clausocalanus	3	1	13	1	8	4	10	3	10	5
Ctenocalanus	8	6	11	1			5	7	5	3
Microcalanus	3									
Pseudocalanus	18									
Calocalanus				1					1	3
Nannocalanus								1		
Aetideus										
Euchaeta	1	5	1	1		2		4	2	
Scolecithricella	2	1						1		
Scolecithrix										
Centropages		3	1		1					1
Temoropia	2									
Mecynocera										2
Temora							2		5	1
Lucicutia					1		2			
Candacia		1	3	1	1	1	2		1	1
Labidocera	1	1								2
Oithona	9	29	25	21	9	2	10	5	12	9
Tortanus	1									
Acartia	20	76	5	1	2	1		1	3	5
Oncaea		6	7	6	12	14	8	1	3	2
Clytemnestra				1						
Corycaeus	31	12	2	1	2	1		2	4	7
Copepoda larva		3	1	2	3	1		4	1	
Oikopleura	1	1	22	7	11	1	7	1	2	2
Penilia	11	2	60	77	100	50	155	125	178	97
Evadne	5	36	49	43	58	22	21	11	6	7
Conchoecia	5	1	4	1		7		1		
Noctiluca										1
Polychaeta			1	1	1	1			1	
Fish larva	1		6	6	6		4	2	2	
Pelagic egg	29	4	3	3	23	23	19	1	10	2
Shell larva			2		1			1		
Ophiopluteus										2
Amphipoda	2	1								
Euphausia	3	7	4		21	6	3	4	2	
Muggiaea				1		1	1			2
Fritillaria			13	7	17	6	3	1	1	
Salpa									1	
Balanus		1			1				1	
Brachyura	10				2				1	1
Pteropoda	5									1
Sagitta	14	20	135	112	103	39	88	55	83	174
Pterosagitta			1	1	2				2	2
Krohnitta			1							3
Diphyes	2					2			1	
Tripaea										4

November							
01	02	03	04	05	06	07	08
8	8	8	8	8	8	8	8
1510	1410	1240	1100	1040	0815	0650	0510
50	100	100	100	100	100	100	100
3.5	4.0	5.0	7.5	6.5	8.0	8.0	10.0
83.0	53.7	57.8	103.1	124.0	82.5	83.5	126.0
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

207 선 부유생물조사표

Plankton Data, Line 207

Month	March					
Station	01	02	03	04	05	07
Date	21	21	21	21	21	22
Time	1600	1755	1905	2140	2250	0120
Collected depth(m)	75	50	120	150	150	100
Volume(cc)	1.0	0.2	0.2	0.1	0.1	R
Biomass(mg/m³)	10.5	10.5	2.5	0.4	9.5	RR
Rate of sub sample	1/16	1/2	1/4	1/2	1/4	1/4
No. of total organisms	100	99	137	75	108	70
No. of total the other organisms	—	—	—	—	—	—
ZOOPLANKTON						
Calanus	7	21	15	4	6	
Eucalanus		1		2	4	2
Paracalanus	22	15	26	4	8	11
Acrocalanus					1	
Clausocalanus		1			5	3
Ctenocalanus		13	12	4	16	4
Calocalanus						
Euchaeta	6	1	1	1		4
Scolecithricella						
Scolecithrix		1	2		4	1
Centropages	7	1	2			
Temora						
Mecynocera						
Lucicutia						1
Candacia		1				5
Labidocera						
Pleuromamma		2	1		1	
Acartia	12	11	12	2	4	2
Oithona	1	2	6	8	8	2
Setella						
Microsetella						
Euterpe						
Oncaea		1	2	5	3	5
Corycaeus	22	12				
Sapphirina						
Copepoda larva		5	2	6	1	
Oikopleura				3	11	3
Penilia						
Evadne						
Conchoecia	13	4	12	18	21	22
Euconchoecia					1	
Polychaeta						
Fish larva						
Pelagic egg		2	7	11	7	3
Shell larva						
Ophiopluteus					1	
Actinotrocha			1			
Amphipoda						
Euphausia			2			
Lucifer						
Muggiaea	1	3	1	1	3	
Fritillaria			1	1	2	2
Balanus						
Brachyura						
Sagitta	9	2	2	1	1	
Krohnitta						

May				
01	02	03	04	05
12	12	12	12	12
1320	1420	1530	1650	1720
50	50	50	50	50
3	20	2	4	2
44.2	167.3	14.3	71.4	41.0
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—

Month	July							
Station	01	03	04	05	07	08	10	12
Date	28	27	27	27	27	27	27	27
Time	1120	2140	2010	1910	1700	1545	1310	1040
Collected depth(m)	80	100	150	150	70	100	100	50
Volume(cc)	3	6.5	7.5	9	8	3	3	7
Biomass(mg/m^3)	45.3	24.5	34.8	26.3	37.5	13	11.9	42.5
Rate of subsample	1/32	1/32	1/32	1/32	1/32	1/16	1/16	1/32
No. of total organisms	395	205	327	524	450	87	244	422
No. of total the other organisms	—	—	—	—	—	—	—	—
ZOOPLANKTON								
Calanus	14	7	4	8	15		6	2
Eucalanus			1	3	2		4	1
Paracalanus	155	47	36	41	14	22	9	12
Acrocalanus	1	1						1
Clausocalanus		2		4	3	6	7	7
Ctenocalanus	3	1	9	21	7			
Calocalanus							1	1
Euchaeta				1		1		
Scolecithricella						1		
Scolecithrix			1					
Centropages								
Temora			1	2		1	1	3
Mecynocera				3				
Lucicutia				1				
Candacia		1	3	4	2	2		2
Labidocera	1							
Pleuromamma								
Acartia	28		2	4	4			2
Oithona	13	4	29	25	17	2	9	17
Setella				1				
Microsetella								1
Euterpe				1				
Oncaea		2	2	8	1	8	8	2
Corycaeus	27	3	1	6	3	5		5
Sapphirina		1						
Copepoda larva	12			3				
Oikopleura	9	14	27	16			1	7
Penilia		15	45	111	236		117	211
Evadne	9	19	65	48	21	4	7	6
Conchoecia		1	1	1	1	1		
Euconchoecia								
Polychaeta	1		2				2	
Fish larva		1	2	1	1	1	1	1
Pelagic egg	10	8	17	14	11	15	6	7
Shell larva		1	1	1			1	1
Ophiopluteus	3	4						
Actinotrocha								
Amphipoda	2							
Euphausia	4	9		11	13	1	2	1
Lucifer			1					1
Muggiaea		4	2	1	3	1		1
Fritillaria		2	3	12	2		5	2
Balanus	7		1	2	2			
Brachyura			1	2		1	1	3
Sagitta	96	58	70	167	90	15	55	12
Krohnitta				1	2		1	4

November								
01	02	03	04	05	07	08	09	10
7	7	7	7	7	7	7	7	8
1230	1425	1518	1650	1803	2002	2150	2310	0055
50	100	100	100	150	50	100	100	—
6.0	7.0	8.5	12.0	9.0	3.0	5.0	6.2	6.0
174.3	58.0	80.2	143.4	109.8	78.5	68.8	79.3	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

206선 부유생물조사표

Plankton Data, Line 206

Month	May					November				
Station	01	02	03	04	05	01	02	03	04	05
Date	14	14	14	14	14	5	6	6	6	6
Time	1030	1230	1430	1640	1840	0900	1030	1200	1335	1503
Collected depth(m)	50	50	50	50	50	50	50	100	100	100
Volume(cc)	2.2	6.0	12.0	9.0	15.0	5.0	6.0	6.0	8.0	6.0
Biomass(mg/m^3)	0.05	0.04	0.03	0.06	0.17	100.5	147.5	109.0	145.0	89.8
Rate of subsample	—	—	—	—	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Amphipoda	11	8	2	5	3					
Euphausia	13	17	7	75	85					
Salpa			9							
Sagitta	33	3	6	11	7					

205선 부유생물조사표

Plankton Data, Line 205

Month	May					November				
Station	01	02	03	04	05	01	02	03	04	05
Date	15	15	15	15	15	12	12	12	12	12
Time	1040	0830	0640	0350	0110	0600	0840	1120	1400	1640
Collected depth(m)	40	50	50	50	50	30	30	30	30	30
Volume(cc)	8.5	8.0	17.5	2.0	1.5	0.5	1.0	0.7	1.3	1.5
Biomass(mg/m^3)	15.7	46.9	3.9	24.0	15.7	15.7	46.9	3.9	24.0	15.7
Rate of subsample	—	—	—	—	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Amphipoda	42	11	3	5	6					
Euphausia	86	14	cc	27						
Salpa										
Sagitta	31	135	17	1	9					

204선 부유생물조사표

Plankton Data, Line 204

Month	April			May					
Station	01	03	05	01	02	03	04	05	06
Date	2	2	2	15	15	15	16	16	16
Time	2145	1850	1540	1240	1510	1730	1735	1000	1245
Collected depth(m)	50	50	50	30	30	40	50	50	50
Volume(cc)	1.0	0.2	4.0	3.5	3.9	1.0	1.2	1.8	0.1
Biomass(mg/m^3)		3.3	25.0	0.19	0.01	0.05	0.03	0.04	0.01
Rate of subsample	1/8	2/1	4/1	—	—	—	—	—	—
No. of total organisms	192	187	206	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—
ZOOPLANKTON									
Calanus	24	23	19						
Eucalanus	1								
Paracalanus	116	135	139						
Acrocalanus	1								
Clausocalanus			1						
Ctenocalanus									
Euchaeta	2	3	5						
Scolecithricella	1	1	1						
Centropages	14								
Candacia	1								
Labidocera									
Acartia	2								
Oithona	3	1							
Oncaea	1	6	4						
Corycaeus	13	2	5						
Copepoda larva									
Oikopleura	2	4							
Penilia									
Evadne									
Conchoecia	5	4	4						
Noctiluca									
Podon									
Pelagic egg	1	4	7						
Fish scale									
Amphipoda					6	2	3	59	3
Euphausia	3	3	11		63	6	28	24	15
Decapoda									
Lucifer									
Muggiaea		6							
Cypridina									
Obelia									
Salpa			11					79	15
Balanus									
Brachyura									
Pteropoda	1								
Sagitta	2				41	108	6	3	5

July			November					
02	04	05	01	02	03	04	05	06
17	18	18	11	11	11	11	11	11
1535	0805	1130	2120	1910	1650	1440	1230	1020
30	50	50	30	30	30	30	30	30
0.4	0.3	0.1	1.2	2.0	2.0	1.0	3.0	2.0
6.2	2.5	2.5	18.0	4.7	61.0	44.8	68.0	72.1
1	2/1	1	—	—	—	—	—	—
222	166	285	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
11	13	17						
		8						
44	100	119						
1	6	2						
	14	1						
7		1						
1		3						
		1						
6								
1		23						
		30						
		4						
6	1	3						
3	2	1						
88	2	7						
		2						
		3						
1	1							
1								
		6						
	5	14						
3								
	8	1						
9		21						
	1							
	3							
4	2							
	1							
4	1							
2	2							
	9							
30	2	3						

203선 부유생물조사표

Plankon Data, Line 203

Month	April		May			July		Nov.
Station	01	03	01	02	03	01	03	01
Date	2	2	20	20	20	19	19	6
Time	1000	0710	1210	0930	0720	1230	1555	1010
Collected depth(m)	50	50	50	50	50	50	50	30
Volume(cc)	0.2	0.3	2.0	0.1		1.7	3	0.5
Biomass(mg/m³)	4.3	5.3	0.14	0.05		145	33	6.0
Rate of subsample	1/2	1/2	—	—	—	1/8	1/16	—
No. of total organisms	215	244	—	—	—	298	264	—
No. of total the other organisms	—	—	—	—	—	—	—	—
ZOOPLANKTON								
Calanus	20	27				32	5	
Eucalanus		1						
Paracalanus	114	105				29	13	
Clausocalanus							4	
Ctenocalanus						12	1	
Calocalanus							3	
Acrocacanus							2	
Euchaeta	12	15				9	1	
Scolecithricella	1	1						
Temora							2	
Candacia	1							
Oithona		2				41	1	
Acartia						80	1	
Oncaea	6	10					3	
Corycaeus	5	11				2	4	
Sapphirina							2	
Copepoda larva							8	
Oikopleura		20				6		
Penilia						2	98	
Evadne							9	
Conchoecia	7	1				2		
Polychaeta							1	
Pelagic egg	11	32				14	43	
Shell larva							1	
Amphipoda	1		86	13		2		
Euphausia	31	6	35	35		4	17	
Muggiaea	6	13						
Fritillaria							1	
Salpa			47		10		38	
Sagitta				9		63	8	

314선 부유생물조사표

Plankton Data, Line 314

Month	May						
Station	02	03	04	05	06	07	08
Date	19	19	19	19	19	19	20
Time	1110	1350	1610	1840	2110	2330	0210
Collected depth(m)	50	50	50	50	50	50	50
Volume(cc)	0.1	0.15	0.1	0.3	3.0	0.5	0.5
Biomass(mg/m^3)	0.01	0.01	0.01	0.03	0.01	0.03	0.03
Rate of subsample	—	—	—	—	—	—	—
No. of total organisms	—	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—
ZOOPLANKTON							
Amphipoda		3	1	7	9	17	19
Euphausia				3		1	
Sagitta	3	2	2	5		2	

November						
02	03	04	05	06	07	08
10	10	10	10	10	9	11
1150	0920	0640	0410	0130	23	—
30	30	30	30	30	30	30
0.2	2.0	0.6	1.7	1.0	1.8	1.8
10.0	59.7	13.5	41.7	36.4	37.9	62.5
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

313선 부유생물조사표

Plankton Data, Line 313

Month	March				May					
Station	03	06	07	09	02	03	04	05	06	07
Date	31	31	31	31	17	17	17	17	17	17
Time	1410	—	—	0100	0910	1130	1340	1530	1740	1930
Collected depth(m)	50	50	50	50	50	50	50	50	50	50
Volume(cc)	0.2	0.1	0.4	0.1	0.3	0.9	0.1	0.1	0.1	0.5
Biomass(mg/m³)	1.2	—	9.3	2.5	0.14	0.11	0.1	0.1	0.01	0.02
Rate of subsample	1/2	1	1/2	1	—	—	—	—	—	—
No. of total organisms	162	57	157	94	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	20	15	45	39						
Eucalanus										
Paracalanus	106	30	75	31						
Clausocalanus										
Ctenocalanus										
Euchaeta	6	3	11	1						
Scolecithricella	2	3		5						
Centropages			1							
Temora										
Labidocera										
Acartia				2						
Oithona				1						
Oncaea	4									
Corycaeus	8	1	3	12						
Oikopleura										
Penilia										
Evadne										
Conchoecia	3	2	1	1						
Pelagic egg	3	1								
Ophiopluteus	1	1								
Amphipoda		1	1				5	1	2	4
Euphausia	4		4							
Muggiaea			10							
Diphyes'	2		1	1						
Pteropoda			1							
Sagitta	3		4	1			1	2	3	
Salpa					45	5	10	82	31	65

Month	July					November				
Station	02	03	05	07	09	02	03	04	05	06
Date	22	22	22	22	22	9	9	9	9	9
Time	1030	1200	1645	2015	2330	08	0020	1230	1420	1630
Collected depth(m)	50	50	83	50	50	30	30	30	30	30
Volume(cc)	0.5	3.0	1.0	2.0	5.5	1.5	1.2	3.0	0.5	1.8
Biomass(mg/m³)	1.0	66.5	2.0	44.9	136.7	98.5	13.0	13.5	21.5	43.0
Rate of subsample	1	1/8	1/2	1/4	16/1	—	—	—	—	—
No. of total organisms	267	297	264	230	513	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	10	14	99	112	127					
Eucalanus	1	1								
Paracalanus	153	32	31	18	11					
Clausocalanus	17	6	1							
Ctenocalanus	14	13	7							
Euchaeta	11	8	4	4	2					
Scolecithricella										
Centropages										
Temora	1									
Labidocera		1	1							
Acartia	16	33	46	39	27					
Oithona	3	17	7	6	19					
Oncaea										
Corycaeus	1	5	12	3	3					
Oikopleura				1						
Penilia	18	18	2	1						
Evadne	2									
Conchoecia	1	1								
Pelagic egg	7									
Ophiopluteus				1						
Amphipoda	12	18	36	15	8					
Euphausia	1	2	1	1	2					
Muggiaea				1						
Diphyes										
Pteropoda										
Sagitta		129	17	27	313					
Salpa										

서 해 부 유 생 물 조 사 성 적

PLANKTON DATA
WESTREN WATERS

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312선 부유생물조사표

Plankton Data, Line 312

Month	March				May					
Station	02	04	06	08	02	03	04	05	06	07
Date	30	30	30	30	22	22	22	22	22	22
Time	1740	1045	1600	1815	0520	0730	0940	1150	1410	1720
Collected depth(m)	50	50	50	50	50	50	50	50	50	50
Volume(cc)	1.0	R	0.2	0.2	1.0	1.2	9.0	11.0	12.0	1.5
Biomass(mg/m³)	4.4	RR	3.8	6.8	0.28	0.03	0.23	0.19	0.18	0.03
Rate of subsample	1/2	1	1	1/2	—	—	—	—	—	—
No. of total organisms	166	17	119	140	—	—	—	—	—	—
No. of totel the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	57	5	30	52						
Paracalanus	64	8	56	63						
Ctenocalanus	3									
Euchaeta			1	1						
Scolecithricella	2									
Centropages		1	1	1						
Temora										
Labidocera				1						
Acartia			2	4						
Oithona			2	2						
Oncaea	1	1								
Corycaeus	19	2	19	5						
Oikopleura				1						
Conchoecia	1									
Pelagic egg	4			2						
Fish scale	3									
Ophiopluteus				3						
Amphipoda	1				19	4	72	17	3	
Euphausia	11		2	2	42	63	235	13	22	
Brachyura										
Sagitta			6	3	28	13	20	8	17	

Month	July				November					
Station	03	05	07	09	02	03	04	05	06	08
Date	23	23	23	23	4	4	4	4	4	4
Time	1420	0955	0650	0330	2135	1930	1720	1520	1315	1110
Collected depth(m)	50	50	50	81	30	30	30	30	30	30
Volume(cc)	1.3	3.8	5.5	1.7	1.0	0.2	1.0	0.7	1.8	0.8
Biomass(mg/m³)	21.3	103	77.7	26.5	44.8	1.0	38.5	75.0	17.1	33.6
Rate of subsample	1/4	1/16	1/8	1/4	—	—	—	—	—	—
No. of total organisms	369	377	653	67	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—	—
ZOOPLANKTON										
Calanus	22	62	27							
Paracalanus	50	61	60	10						
Ctenocalanus	2	1	1							
Euchaeta	2	1								
Scolecithricella										
Centropages				1						
Temora				1						
Labidocera				1						
Acartia	159	152	226	14						
Oithona	60	29	106	12						
Oncaea										
Corycaeus	8	9	3							
Oikopleura										
Conchoecia	2		1							
Pelagic egg	2									
Fish scale										
Ophiopluteus										
Amphipoda										
Euphausia	3	5	10	5						
Brachyura			2							
Sagitta	59	57	217	23						

311선 부유생물조사표

Plankton Data, Line 311

Month	March			July			November		
Station	04	06	09	04	07	09	04	05	06
Date	28	27	27	27	27	28	3	3	3
Time	1010	0520	0010	1800	1010	1210	1210	1350	1545
Collected depth(m)	35	50	50	30	50	50	30	30	30
Volume(cc)	0.2	5	6	0.3	3.0	1.2	0.8	0.5	1.0
Biomass(mg/m)	3.2	83.5	123.9	0	21.1	4.5	36.5	11.5	12.2
Rate of subsample	1/2	1/2	1/4	1	1	1/4	—	—	—
No. of total organisms	110	189	413	226	65	432	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—
ZOOPLANKTON									
Calanus	23	63	66	21	12	65			
Paracalanus	55	48	52	29	1				
Euchaeta				7	1	1			
Scolecithricella	1								
Centropages		3	3						
Labidocera	1			3	2	7			
Acartia	16	13	47	124	34	183			
Oithona	1	15	52	14	1	46			
Corycaeus	1	2	4	11	5	9			
Copepoda larva	1		1						
Oikopleura						1			
Evadne					2	2			
Pelagic egg		6	74	1					
Ophiopluteus	2	2	5						
Amphipoda		2		15	3	8			
Euphausia	1		1	1	2				
Muggiaea	1								
Brachyura		1							
pteropoda		1							
Sagitta	7	33	108		3	109			

310선 부유생물조사표

Plankton Data, Line 310

Month	March			
Station	03	05	07	09
Date	26	26	26	26
Time	1020	1320	1535	2005
Collected depth(m)	24	50	80	50
Volume(cc)	1.4	1.9	0.9	5.0
Biomass(mg/m³)	36.0	33.5	7.0	117
Rate of subsample	1/4	1/4	1/4	1/4
No. of total organisms	117	314	162	141
No. of totcl the other organisms	—	—	—	—
ZOOPLANKTON				
Calanus	9	16	27	35
Paracalanus	25	89	36	29
Acrocalanus	1			
Ctenocalanus				
Euchaeta				
Centropages	7	21	3	4
Acartia	14	7	3	7
Oithona		1		2
Corycaeus	9	23	37	3
Copepoda larva	8			
Oikopleura				
Evadne				
Fish larva		1		1
Pelagic egg	2	7	4	5
Ophiopluteus	14	40	21	3
Amphipoda		1	15	1
Euphausia	5	2		2
Pteropoda		1		
Sagitta	23	105	16	49
Salpa				

July				November					
03	05	07	09	03	04	05	06	07	08
29	29	28	28	3	3	3	3	3	3
0310	0015	1930	1625	0635	0800	0935	1100	1240	1415
20	50	50	50	23	56	50	50	50	50
1. 1	5. 8	1. 5	1. 2	4. 0	3. 0	2. 0	3. 0	3. 0	0. 5
4. 2	116. 7	26	18. 7	119. 89	25. 55	26. 34	34. 95	82. 94	4. 31
1/4	1/8	1/4	1/4	—	—	—	—	—	—
195	985	533	1194	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
80	232	91	138						
22	81	24	8						
	1	3							
7	2	1							
			2						
21	59	157	138						
7	5	12	30						
	2	7	8						
			11						
1	1	13	272						
			1						
		1	3						
1									
5	9	17	4	1	1	2		223	
1	19		5	10	9	1		1	
50	574	207	574	243	162	46	35	156	34
				1	1	1	17	1	

309선 부유생물조사표

Plankton Data, Line 309

Month	March			
Station	02	04	06	08
Date	22	22	22	22
Time	0800	0430	0130	2235
Collected depth(m)	45	60	50	70
Volume(cc)	1.5	1.8	3.8	1.6
Biomass(mg/m^3)	31.0	5.3	58.3	11.3
Rate of subsample	1/4	1/4	1/4	1/4
No. of total organisms	476	127	322	150
No. of total the othe orgranisms	—	—	—	—
ZOOPLANKTON				
Calanus	28	4	34	13
Paracalanus	30	12	11	9
Centropages	20	5	8	4
Labidocera			1	
Acartia	43	11	11	12
Oithona	4	2		
Corycaeus	11	8	11	7
Copepoda larva	2	1		5
Penilia				
Evadne				
Oikopleura				
Noctiluca				
Polychaeta	16	1		
Pelagic egg	53	15	4	2
Fish scale				
Shell larva				
Ophiopluteus	142	58	60	37
Amphipoda	1		1	1
Euphausia	8	3	6	
Brachyura				
Pteropoda			2	
Sagitta	118	7	173	60
Salpa				

August				November							
01	03	05	09	01	02	03	04	05	06	07	08
3	3	3	3	4	4	4	3	3	3	3	3
0830	1130	1625	2220	0510	0300	0135	2355	2215	2040	1910	1745
22	47	70	80	25	35	50	50	50	50	50	50
0.1	4.0	R R	0.8	5.0	6.0	6.0	13.0	4.0	8.0	1.5	2.0
0	37.2	0	1.1	2.36	5.96	78.76	234.28	69.31	177.28	501.10	11.79
1	1/4	1	1/2	—	—	—	—	—	—	—	—
83	93	9	234	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
6		5	35								
19	8	2	17								
	1										
5	13										
11		2	58								
1											
9	3		3								
			53								
			49								
	3										
3											
2	39										
1											
13											
5			4		3	2	19	5	5	1	1
2	1		3		8	29	10	89	17	7	
2	25										
4			12	222	351	54	808	202	584	73	29
				2	6	22	7	5	4		

308선 부유생물조사표

Plankton Data, Line 308

Month	March			August			
Station	01	03	07	01	03	05	09
Date	20	29	21	4	4	4	4
Time	1400	1030	1735	1635	1410	1000	0155
Collected depth(m)	20	40	70	15	37	50	82
Volume(cc)	0.9	1.2	3.8	0.5	0.5	0.4	2.0
Biomass(mg/m^3)	74.5	28.3	38.3	4.0	6.7	0.2	0
Rate of subsample	1/8	1/8	1/8	1	1/4	1/2	1
No. of total organisms	87	200	363	79	33	120	186
No. of total the other organisms	—	—	—	—	—	—	—
ZOOPLANKTON							
Calanus	26	32	33	13	9	35	39
Paracalanus	8	12	19	5	2	3	4
Centropages	4	8	15	2		2	
Labidocera	3				1		
Tortanus				1		1	
Acartia	20	42	30	27		31	34
Oithona			1		2	2	11
Oncaea			1				
Corycaeus	1	2	20	3	2	6	
Copepoda larva		3					
Penilia					3	12	45
Evadne				25	10	22	24
Polychaeta		2					
Fish larva		5					
Pelagic egg		31		1	3	4	3
Amphipoba						1	2
Euphausia			2	1	1	1	4
Ophiopluteus		18	151				
Brachyura				1			
Pteropoda			5				
Sagitta	25	45	86				20
Salpa							

November							
01	02	03	04	05	06	07	08
4	4	4	4	5	5	5	5
0900	1025	1200	1330	0720	0900	1030	1205
16	23	44	50	50	50	50	50
2.0	1.0	3.5	1.5	3.5	2.0	1.5	0.5
23.51	15.85	130.49	36.95	58.96	48.58	34.51	6.29
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
1		4		7	3		1
4	2	7		7		2	1
107	51	251	58	118	79	63	17
6	4	4	2	1			

307선 부유생물조사표

Plankton Data, Line 307

Month	March		May				
Station	05	07	03	04	05	06	07
Date	18	17	13	13	13	13	13
Time	0400	2335	0500	0330	0200	0045	2330
Collected depth(m)	50	60	36	30	50	58	60
Volume(cc)	5.5	2.0	1.0	3.5	6.5	2.3	2.0
Biomass(mg/m^3)	79.5	31.5	21.66	162.26	196.98	33.73	22.96
Rate of subsample	1/16	1/8	—	—	—	—	—
No. of total organisms	348	302	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—
ZOOPLANKTON							
Calanus	76	42					
Paracalanus	15	4					
Centropages	23	2					
Labidocera	2	1					
Tortanus							
Acartia	21	29					
Oithona		1					
Oncaea		1					
Corycaeus	5	8					
Copepoda larva	2						
Oikopleura							
Evadne							
Polychaeta							
Fish larva							
Pelagic egg	2	8					
Fish scale							
Shell larva							
Ophiopluteus	3	1					
Amphipoda			3	4	24		
Euphausia		2		15	16	3	4
Brachyura	1						
Pteropoda							
Sagirtta	100	100	11	71	12	24	16
Salpa							

August			November					
04	06	08	03	04	05	06	07	08
4	5	5	6	5	5	5	5	5
1940	0040	0450	0210	2315	2140	2005	1825	1645
32	50	64	45	23	45	46	50	50
0.3	1.5	2.3	0.5	2.0	3.0	4.5	1.5	3.5
0.2	14.7	21.5	8.25	17.42	73.90	103.85	230.74	91.27
1	1/12	1/2	—	—	—	—	—	—
225	714	818	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
4	11	7						
4	47	20						
1	9	6						
1	2							
2	1	11						
	2							
1	11	12						
	1							
	1							
3	29	141						
	1							
	1	1						
	1	23						
1								
8	11	1						
32	45	4						
	1							
6	10	3		13				
124	78	80	1	5	5	4		
	1							
28	451	509	10	31	174	212	68	35
				11	4	4		

306선 부유생물조사표

Plankton Data Line 306

Month	March			May					
Station	04	06	08	02	03	04	05	06	07
Date	17	17	17	12	12	12	12	12	12
Time	1230	1630	1920	1230	1400	1530	1700	1830	2000
Collected depth(m)	18	50	66	40	12	18	36	40	50
Volume(cc)	0.2	0.6	3	1.0	0.5	0.5	0.5	0.3	2.0
Biomass(mg/m^3)	37	15.6	49.0	28.3	48.74	15.22	5.41	3.14	15.35
Rate of subsample	1/2	1/2	1/16	—	—	—	—	—	—
No. of total organisms	34	126	315	—	—	—	—	—	—
No. of total the other organisms	—	—	—	—	—	—	—	—	—
ZOOPLANKTON									
Calanus	7	87	43						
Paracalanus	2	6	5						
Centropages		4	6						
Labidocera	5	5	2						
Tortanus									
Acartia	14	18	32						
Oithona									
Corycaeus	1	1	7						
Copepoda larva			2						
Evadne									
Polychaeta			5						
Podon									
Fish larva									
Pelagic egg		1	6						
Shell larva									
Ophiopluteus									
Amphipoda		3	3			1			4
Euphausia	1			2	1				
Balanus									
Brachyura									
Pteropoda			1						
Sagitta	4	1	203	30		1			31
Salpa									

August		November				
04	06	04	05	06	07	08
5	5	9	9	9	9	9
1230	0945	0540	0720	0855	1035	1215
25	40	25	36	38	47	50
3.5	0.7	1.0	0.2	0.3	1.0	12.0
159.6	6.0	32.63	0.42	10.79	27.06	27.917
1/16	1	—	—	—	—	—
468	142	—	—	—	—	—
—	—	—	—	—	—	—
6	9					
30	3					
4	1					
3						
2	5					
1						
11	8					
	17					
3						
2						
3	3					
13						
29						
	2					
3		9			1	
1						
105	63					
252	31	59		22	23	
		14				

제 5 편

특별 해양 관측 성적

PART 5

MISCELLANEOUS OCEANOGRAPHIC OBSERVATIONS

1966

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남 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS SOUTHERN WATERS

1966

서해남부 및 남해 해양관측점 위치표

Station Positions, Southern and South-Western Coast

St No. / Line	01	02	03	04	05	06	07	80
A	34°54′30″ 128°47′10″	35°03′55″ 128°41′20″	35°02′15″ 128°32′00″	34°55′20″ 128°33′05″	34°49′20″ 128°26′45″	34°40′50″ 128°22′15″	34°51′00″ 128°16′45″	34°47′30″ 128°07′00″
선	09	10	11	12	13	14	15	
Line A	34°40′00″ 128°01′00″	34°43′00″ 127°49′45″	34°38′15″ 127°41′30″	34°29′00″ 127°40′00″	34°21′00″ 127°21′15″	34°15′30″ 126°58′10″	34°05′10 126°38′00	

	01	02	03	04	05	06	07	08
S 멸치어장선	34°58′50″ 128°45′15″	34°38′30″ 128°36′15″	34°31′50″ 128°27′15″	34°33′05″ 128°15′20″	34°41′34″ 128°08′55″	34°36′30″ 127°58′45″	34°34′00″ 127°46′45″	34°27′30″ 127°37′40
	09	10	11	12	13	14		
Line S	34°17′55″ 127°40′40″	34°54′00″ 128°54′30″	34°54′30″ 28°47′00″					

	34°56′30″ 128°56′00″	34°49′00″ 128°48′45″	34°38′00″ 128°37′00″	34°30′00″ 128°21′00″	34°25′00″ 128°11′00″	34°14′10″ 127°52′30″	34°00′40″ 127°45′00″	33°49′05″ 127°55′40′
고등어	33°47′00″ 127°37′00″	33°32′30″ 127°38′00″	33°39′30″ 127°21′05″	33°32′00″ 127°05′15″	33°24′10″ 127°21′45″	33°17′15″ 127°37′30″	33°10′30″ 127°54′00″	32°57′00′ 127°44′30′
전갱이	33°04′00″ 127°30′20″	33°11′10″ 127°13′30″	32°50′50″ 127°21′00″	32°57′45″ 127°05′00″	33°04′45″ 126°49′15″	33°04′50″ 126°25′35″	37°04′50″ 126°07′45″	33°04′50′ 125°49′45′
이장선	32°49′35″ 125°49′45″	32°34′35″ 125°49′45″	32°19′30″ 125°49′45″	32°19′30″ 126°07′45″	32°18′30″ 126°25′35″	32°18′30″ 126°43′45″	32°19′30″ 127°01′50″	32°19′30′ 127°20′05″
	32°34′35″ 127°20′05″	32°34′35″ 127°01′50″	32°34′35″ 126°43′45″	32°34′32″ 126°25′35″	32°34′32″ 126°07′45″	32°49′35″ 126°07′45″	32°49′35″ 126°25′35″	

남조사해양정점	33°36′10″ 126°27′00″	34°47′00″ 125°10′00″	34°55′00″ 125°02′00″	35°02′30″ 124°54′30″	35°12′00″ 124°56′00″	35°15′40″ 125°06′50″	35°18′05″ 125°18′00″	35°20′50″ 125°28′00″
	35°21′00″ 125°40′50″	34°26′15″ 125°11′05″	34°18′05″ 125°07′55″	34°08′45″ 125°04′15″	34°02′00″ 125°02′20″	33°54′15″ 124°54′45″	33°51′45″ 125°06′20″	33°49′15″ 125°18′00″
South Western Coast	33°45′30″ 125°29′30″	33°44′10″ 125°41′00″	33°41′30″ 125°52′10″	33°38′50″ 125°06′00″	33°36′15″ 126°15′40″	35°40′40″ 125°59′00″		

	01	02	03	04	05	06	07	08
F		33°28′00″ 127°49′00″	33°43′00″ 126°53′00″	33°50′00″ 126°42′00″	33°50′10″ 126°15′00″	33°47′00″ 126°04′30″	33°35′30″ 126°12′30″	33°12′00″ 126°06′30″
선	09	10						
Line F	32°45′30″ 126°11′00″	32°45′00″ 128°01′00″						

A선 관측점 위치도
PUSAN
YOSU
1
2
3
4
5
6
7
8
9
10
11
12
14
N
35°
30
127°
30
128°
30
129° E

A선 해 양 관 측 성 적

Oceanographic Data, Line A

Date		January								
St No.		01	02	03	04	05	06	07	08	09
Day		31	31	31	21	21	February 1	30	30	30
Item	Time / Z(m)	1312		1017	1230		2000	1030	1245	1505
T ℃	0	5.0	5.3	4.8	5.6	12.0	12.8	13.2	13.7	14.6
	10	5.0	4.9	4.8	6.4	10.0	12.5	13.0	13.3	14.5
	20	—	—	—	—	—	—	12.2	13.3	14.5
	30	—	—	—	—	—	—	—	—	14.5
	50	—	—	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—	—	—
	Botm.	5.0	5.0	5.5	6.4	6.6	11.5	11.6	12.3	14.1
S ‰	0									
	10									
	20									
	30									
	50									
	75									
	Botm.									
Depth(m)		21	22	19	22	36	—	26	93	43
Secchi(m)		—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—
Sea		—	1	1	—	1	—	2	1	—
Swell		—	1	0	—	0	—	1	1	—
Air Temp. (°C)		8.5	8.2	6.3	7.5	10.5	12.1	3.5	7.3	7.4
Baro. (mm)		1020	1020	1017	1015	1014	1014	1022	1022	1020
Wind		NNE. 1	SW. 1	NW. 1	NE. 1	NW. 1	—	NE. 2	NW. 1	NW. 1
Cloud		—	—	Ast. 6	Ast. 3	St. 9	St. 9	—	—	—
Weather		B	B	B	B	BC	BC	B	B	B

Date		April										
St No.		01	02	03	04	05	06	07	08	09	10	11
Day		14	13	13	13	12	12	9	9	9	14	14
Item	Time / Z(m)	0810	1705	0820	0700	1908	1750	0735	0920	1055	1345	0730
T ℃	0	—	—	—	—	—	—	—	—	-	—	—
	10	—	—	12.11	—	12.02	—	12.36	11.39	11.56	13.43	13.04
	20	—	—	12.01	—	11.85	11.65	11.72	—	—	13.61	—
	30	—	12.65	12.00	11.87	—	—	—	—	—	13.13	—
	50	—	—	11.95	—	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—	—	—	—	—
	Botm.	12.44	12.54	—	11.68	—	11.70	—	11.03	10.87	—	12.97
S ‰	0											
	10											
	20											
	30											
	50											
	75											
	Botm.											
Depth(m)		20	49	62	50	34	28	29	20	26	58	24
Secchi(m)		9	8	8	7	—	5	2	3	2	8	—
Color		—	—	—	—	—	—	—	—	—	8	10
Sea		—	—	—	—	—	—	—	—	—	—	—
Swell		1	1	1	1	1	1	1	1	1	2	1
Air Temp. (°C)		—	—	—	—	—	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—	—	—	—
Wind		—	—	—	—	—	—	—	—	—	—	—
Cloud		—	—	Ci-St. 8	Ci-St. 7	St. 1	St. 2	Ci-Cu. 10	Ci-Cu. 10	—	St. 8	—
Weather		—	—	C	C	B	B	R	R	—	C	—

Data		May									
St No.		1	2	3	4	5	7	8	9	10	11
Day		28	28	28	28	28	28	28	27	27	27
Item	Time / Z(m)	1530	1415	1320	1200	1035	0915	0740	1320	1130	1000
T ℃	0	17.30	17.80	18.30	19.10	18.20	17.80	17.50	18.4	18.20	19.20
	10	18.65	18.09	16.59	18.29	—	—	17.56	18.89	17.83	17.42
	20	16.47	17.09	—	—	—	—	—	17.20	—	—
	30	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—	—	—	—
	Botm.	16.08	16.88	—	—	16.60	17.09	16.15	16.21	17.29	16.60
S ‰	0										
	10										
	20										
	30										
	50										
	75										
	Botm.										
Depth(m)		30	38	15	18	13	14	20	29	18	18
Secchi(m)		5	7	9	9	5	4.5	4	8	3	2
Color		5	3	5	3	5	5	5	4	5	6
Sea		1	1	2	1	1	1	1	1	1	0
Swell		0	0	0	1	0	0	0	0	0	0
Air Temp. (°C)		19	20.3	19	21	19	18	18	18	19	19
Baro. (mm)		1020	1019	1019	1018	1019	1019	1020	1021	1022	1020
Wind		S. 1	S. 1	S. 2	S. 3	S. 3	E. 2	S. 2	S. 2	S. 2	0
Cloud		Ns. 10	Nb. 10	Nb. 10	Nb. 10	Nb. 10	Nb. 10	Nb. 10	St. 10	Ci. 10	0
Weather		R	C	C	C	C	C	C	C	C	Fog

Date		May		September			
St No.		12	13	2	3	4	5
Day		26	26	8	8	8	8
Item	Time / Z(m)	1430	1145	0935	1050	1215	1840
T ℃	0	19.50	19.30	25.8	25.2	26.5	26.2
	10	—	—	25.61	25.72	25.80	26.30
	20	—	—	23.94	25.81	25.87	—
	30	—	—	18.21	24.34	25.75	—
	50	—	—	—	—	—	—
	75	—	—	—	—	—	—
	Botm.	17.68	17.59	18.28	17.60	20.89	24.91
S ‰	0						
	10						
	20						
	30						
	50						
	75						
	Botm.						
Depth(m)		15	15	55	49	45	28
Secchi(m)		2	1	8	7	12	5
Color		6	7	4	4	4	4
Sea		1	1	6	4	2	3
Swell		0	0	3	2	2	2
Air Temp. (°C)		21	18	26	26	29	27
Baro. (mm)		1020	1020	759	758	759	755
Wind		SE. 2	ESE. 2	SSE. 2	SSE. 3	SE. 3	SE. 2
Cloud		—	—	AlSt. 3	CuSt. 1	CuSt. 9	AlCu. 3
Weather		F	F	BC	C	C	BC

Date		November						
St No.		2	3	4	5	6	7	8
Day		19	19	19	19	21	21	21
Item	Time / Z(m)	1240	1415	1545	1712	0840	1015	1145
T ℃	0	17.0	17.0	16.7	16.6	15.1	15.6	14.7
	10	16.24	15.75	16.40	15.76	12.15	11.07	11.62
	20	16.89	16.60	16.74	16.63	—	11.88	15.21
	30	16.94	16.72	—	—	—	15.50	—
	50	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—
	Botm.	16.93	16.60	16.76	16.70	15.45	15.61	15.48
S ‰	0							
	10							
	20							
	30							
	50							
	75							
	Botm.							
Depth(m)		45	51	48	33	25	45	32
Secchi(m)		6	8	7	—	4	5	4
Color		4	5	5	5	5	6	6
Sea		3	2	3	—	2	3	4
Swell		2	2	2	2	1	2	1
Air Temp. (°C)		15	17	17	15	5	7	6
Baro. (mm)		1022	1021	1021	1023	1033	1032	1032
Wind		W. 4	W. 3	WNW. 4	NW. 3	WNW. 2	WNW. 4	N. 5
Cloud		As. 4	As. 3	As. 3	Ci. 1	Ci. 6	As. 1	As. 3
Weather		B	B	B	B	BC	B	B

S선 관측점 위치도
Masan
Pusan
Samchunpo
Nam hae Do
1
2
3
4
5
6
7
8
9
10
11
12
13
14
N
35°
46'
128°
30'
129° E

S선 해 양 관 측 성 적

Oceanographic Data, Line S

Date		April	
St No.		02	12
Day		13	16
Item	Time / Z(m)		2015
T ℃	0	14.70	14.00
	10	14.60	14.10
	20	14.60	14.00
	30	14.50	13.80
	50	—	12.70
	75	—	—
	100	—	—
	Botm.	13.20	5.30
S ‰	0	—	—
	10	—	—
	20	—	—
	30	—	—
	50	—	—
	75	—	—
	100	—	—
	Botm.		
Depth(m)		73	83
Secchi(m)		9	—
Color		—	—
Sea		1	4
Swell		1	2
Air Temp. (°C)		14.5	10.3
Baro. (mm)		—	—
Wind		NW. 1	N. 4
Cloud		St. 7	Ci-St. 5
Weather		BC	BC

Date		September									
St No.		3	4	5	6	7	8	9	10	11	12
Day		7	7	7	7	7	8	8	8	8	8
Item	Time / Z(m)	1050	1215	1320	1340	1425	1545	0650	0745	1405	1500
T ℃	0	25.8	26.7	26.0	25.5	25.6	26.5	25.7	25.8	26.5	26.8
	10	25.53	25.27	25.43	25.42	25.64	26.37	35.87	25.78	25.79	26.12
	20	—	—	—	—	—	—	—	25.24	25.82	26.73
	30	—	—	—	—	—	—	—	25.17	23.87	—
	50	—	—	—	—	—	—	—	—	—	—
	Botm.	23.89	24.29	—	25.43	25.51	26.43	—	22.17	18.39	24.60
S ‰	0										
	10										
	20										
	30										
	50										
	Botm.										
Depth(m)		24	14	11	20	20	19	12	38	58	32
Secchi(m)		2	2	1.5	1.5	1.5	1.5	3	4	11	7
Color		9	9	9	9	9	8	8	8	4	4
Sea		3	1	0	1	1	1	0	1	2	2
Swell		2	1	0	1	1	1	0	1	1	1
Air Temp. (°C)		26	27	26	27	26	26	26	26	29	29
Baro. (mm)		760	759	760	760	759	755	759	759	759	756
Wind		SE. 3	SE. 1	ESE. 7	SSE. 7	SSE. 7	SSE. 7	SE. 4	SE. 6	SE. 3	E. 5
Cloud		St. 9	AcSt. 8	CuSt. 8	CuSt. 6	Cu. 8		AlSt. 9	AlSt. 6	CiAc. 3	CiCu. 5
Weather		C	C	C	C	C	C	C	C	B	BC

Date		September	
St No.		13	14
Day		8	8
Item	Time / Z(m)	1600	1710
T ℃	0	27.10	26.08
	10	26.51	25.92
	20	—	—
	30	—	—
	50	—	—
	Botm.	—	—
S ‰	0		
	10		
	20		
	30		
	50		
	Botm.		
Depth(m)		13	12
Secchi(m)		5	1.5
Color		6	8
Sea		1	1
Swell		1	1
Air Temp. (°C)		29	27
Baro. (mm)		755	755
Wind		E. 2	SE. 2
Cloud		Al St. 1	Cu-Ci. 2
Weather		B	C

Date		November									
St No.		1	2	3	4	5	6	7	8	9	10
Day		18	18	11	11	18	18	18	18	18	19
Item	Time / Z(m)	0730	0903	1105	1158	1250	1320	1410	1505	1630	1105
T ℃	0	16.50	17.90	15.70	15.90	16.02	16.00	16.00	16.00	15.00	16.20
	10	16.11	16.23	14.96	15.08	14.96	15.19	15.32	15.63	—	16.58
	20	16.11	16.66	16.29	—	—	—	—	—	—	16.55
	50	—	—	—	—	—	—	—	—	—	—
	75	—	—	—	—	—	—	—	—	—	—
	Botm.	16.67	16.69	16.45	16.45	16.10	16.09	16.00	16.17	15.65	16.54
S ‰	0										
	10										
	20										
	30										
	50										
	Botm.										
Depth(m)		30	31	30	25	18	12	18	18	12	28
Secchi(m)		4	10	3	4	6	7	7	8	2	5
Color		5	4	6	6	5	5	5	6	7	7
Sea		3	2	2	2	2	1	1	1	—	3
Swell		2	1	1	1	0	0	0	0	—	2
Air Temp. (°C)		12.5	13.2	10.2	12	11	11	12	13	13	12
Baro. (mm)		1027	1027	1027	1026	1026	1026	1026	1026	1026	1022
Wind		NW. 4	NW. 3	NW. 3	NW. 3	NW. 3	NW. 2	—	NE. 11	—	NW. 3
Cloud		0	0	0	0	0	0	—	—	—	As. 3
Weather		B	B	B	B	B	B	B	B	B	BC

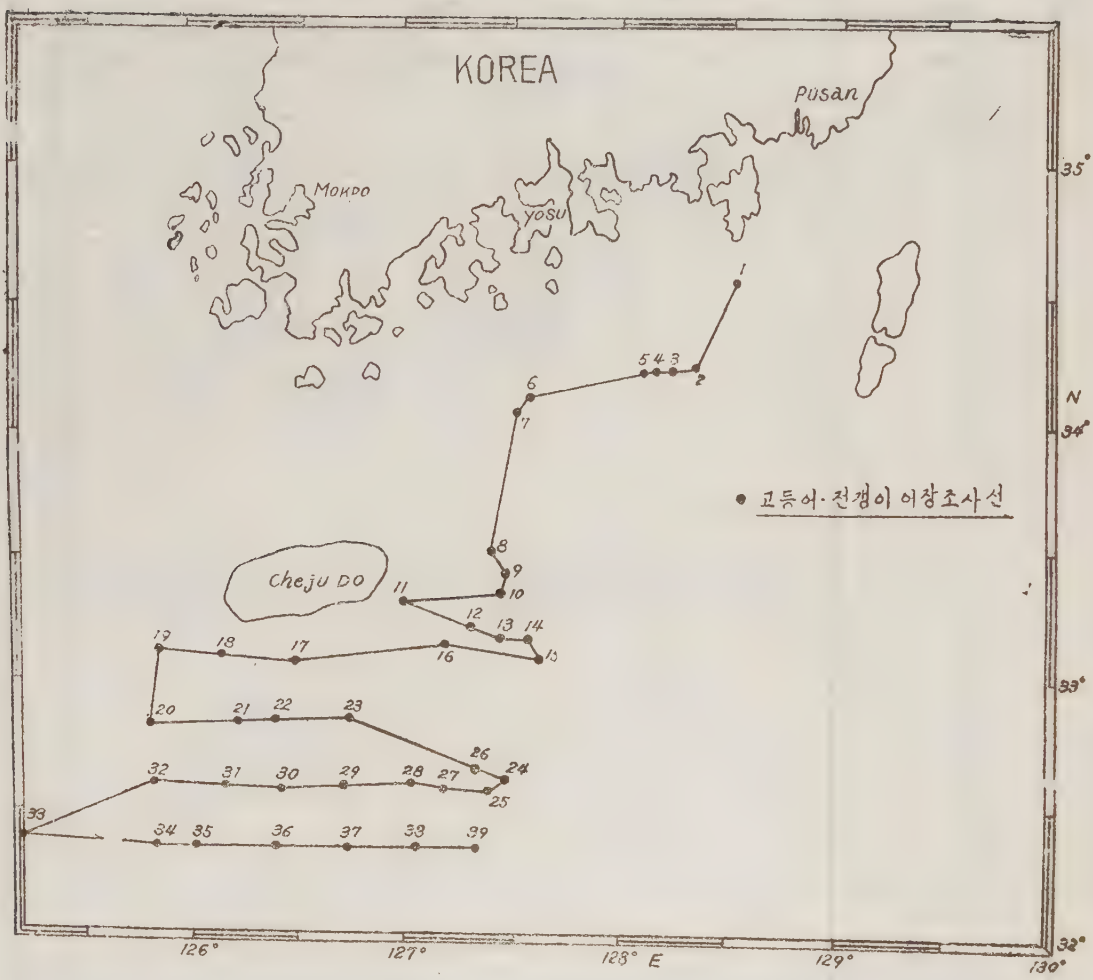
Date		November		
St No.		11	12	13
Day		19	19	19
Item	Time / Z(m)	1012	0915	0825
T ℃	0	16.00	15.90	15.50
	10	14.59	15.54	—
	20	16.43	16.33	—
	30	16.63	—	—
	50	16.57	—	—
	Botm.	16.80	16.68	15.07
S ‰	0			
	10			
	20			
	30			
	50			
	Botm.			
Depth(m)		60	31	11
Secchi(m)		—	4	—
Color		6	6	6
Sea		3	2	—
Swell		2	1	
Air Temp. (°C)		14	14	13
Baro. (mm)		1023	1023	1023
Wind		W. 4	W. 3	W. 4
Cloud		—	As. 1	Ci. 3
Weather		B	B	B

下선 관측점 위치도
N
35°
34°
33°
126°
127°
128° E
MOKPO
YOSU
Cheju DO
01
02
03
04
05
06
07
08
09
10

F선 해양관측성적

Oceanographic Data, Line F

Date		August									
St No.		01	02	03	04	05	06	07	08	09	10
Day		25	25	25	26	26	26	26	26	27	27
Item	Time / Z(m)	2210	2330	0900	1020	1556	1846	20.9	2345	0340	2000
T ℃	0	28.2	27.7	27.8	27.2	26.8	26.4	27.4	27.2	27.4	28.5
	10	28.2	27.7	28.0	26.4	25.5	25.0	27.0	27.0	27.4	28.0
	20	28.2	27.5	27.5	25.0	21.0	23.1	20.5	27.8	27.8	27.5
	30	28.2	27.5	20.5	19.0	17.0	18.7	15.0	18.5	28.0	26.8
	50	20.8	19.0	17.5	14.0	14.0	12.3	14.4	14.7	14.5	23.5
	75	19.0	17.2	17.0	—	12.0	11.9	14.9	14.3	15.0	22.5
	100	16.5	14.5	14.7	—	—	—	—	—	—	20.5
	125	—	—	—	—	—	—	—	—	—	18.2
	Botm.	16.8	14.5	14.7	14.0	12.0	11.9	14.1	14.8	15.5	16.3
S ‰	0										
	10										
	20										
	30										
	30										
	75										
	100										
	125										
	Botm.										
Depth(m)		128	120	120	110	100	110	100	120	125	205
Secchi(m)		—	—	—	17	16	14	—	—	—	—
Color		—	—	—	4	4	4	—	—	—	—
Sea		2			2	2	2	2	2	—	1
Swell		2			1	1	1	1	1	—	1
Air Temp. (°C)		28.8	26.6	28.6	28.8	28	27	27	26	26	28
Baro. (mm)		748	—	761	757	759	759	759	760	760	760
Wind		S. 2	S. 2		S	E	E. 2	E. 2	SE. 2	SE. 3	N. 2
Cloud		St			St	AlSt. 9	AlSt. 3				
Weather		BC			R	C	BC	C	B	B	


KOREA
Pusan
Mokpo
Yosu
Cheju DO
35°
N
34°
33°
32°
126°
127°
128° E
129°
130°
• 고등어·전갱이 어장조사선

고등어 전갱이 어장조사선 해양관측성적

Date		May									
St No.		01	02	03	04	05	06	07	08	09	10
Day		15	15	15	15	15	15	15	15	15	16
Item	Time / Z(m)	0830	0950	1220	1420	1540	1820	2020			0210
T ℃	0	15.7	16.3	15.4	17.5	17.0	16.5	16.5	16.2	15.5	17.5
	10	15.0	15.0	14.5	16.8	15.3	15.2	16.0	16.1	15.5	17.4
	20	14.9	14.9	14.5	15.2	15.1	14.0	15.4	15.8	15.4	17.2
	30	14.9	14.5	14.5	14.9	14.5	13.7	14.6	15.0	15.1	17.0
	40	—	14.3	14.5	14.3	—	13.5	14.0	14.3	14.9	16.5
	50	—	—	—	14.1	—	—	13.6	14.0	—	16.5
	60	—	—	—	—	—	—	13.4	13.9	—	—
	70	—	—	—	—	—	—	—	14.4	—	—
	Botm.	14.9	14.3	14.5	14.1	14.3	13.0	13.3	14.5	14.8	15.2
S ‰	0										
	10										
	20										
	30										
	40										
	50										
	60										
	70										
	Botm.										
Depth(m)		—	45	50	55	40	50	75	80	55	—
Secchi(m)		—	—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—	—
Sea		—	—	—	—	—	—	—	—	—	—
Swell		—	—	—	—	—	—	—	—	—	—
Air Temp(°C)		—	—	—	—	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		—	—	—	—	—	—	—	—	—	—
Cloud		—	—	—	—	—	—	—	—	—	—
Weather		—	—	—	—	—	—	—	—	—	—

Date		May									
St No.		11	12	13	14	15	16	17	18	19	20
Day		16	16	16	17	17	17	18	17	17	17
Item	Time / Z(m)		2005	2210	0005	0200	0400	0600	0850	1050	1245
T ℃	0	19.0	19.3	19.0	20.2	19.7	19.0	18.0	18.6	18.5	15.5
	10	18.9	19.0	18.7	20.1	19.7	19.0	18.0	18.6	18.2	15.0
	20	18.8	18.2	18.5	20.0	18.7	19.0	17.9	18.5	17.9	15.0
	30	18.4	17.9	18.3	19.9	18.6	18.9	17.7	18.4	17.9	14.7
	40	17.3	17.6	17.2	19.0	18.4	18.5	17.4	18.1	17.7	14.6
	50	17.0	16.0	16.8	18.0	16.5	16.7	13.7	15.3	16.6	14.5
	60	—	—	—	—	—	—	—	—	15.8	14.4
	70	15.1	15.0	15.8	15.8	16.0	15.8	15.0	15.3	15.4	14.3
	80	—	—	15.2	16.0	15.4	15.3	14.9	15.1	15.1	14.2
	90	—	—	—	15.5	15.2	15.4	14.7	15.0	15.0	14.0
	100	15.1	15.2	—	14.9	15.0	14.9	—	—	14.9	14.0
	110	13.6	14.3	—	14.5	15.2	—	—	—	—	—
	120	13.6	14.0	—	—	14.9	—	—	—	—	—
	130	—	—	—	—	—	—	—	—	—	—
	140	—	—	—	—	—	—	—	—	—	—
	Botm.	13.6	14.0	15.0	14.5	13.4	14.9	14.7	15.0	—	14.0
S ‰	0										
	10										
	20										
	30										
	40										
	50										
	60										
	70										
	80										
	90										
	100										
	110										
	120										
	130										
	140										
	Botm.										
Depth(m)		—	—	—	—	—	—	—	—	100	100
Secchi(m)		—	—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—	—
Sea		—	—	—	—	—	—	—	—	—	—
Swell		—	—	—	—	—	—	—	—	—	—
Air Temp(°C)		—	—	—	—	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		—	—	—	—	—	—	—	—	—	—
Cloud		—	—	—	—	—	—	—	—	—	—
Weather		—	—	—	—	—	—	—	—	—	—

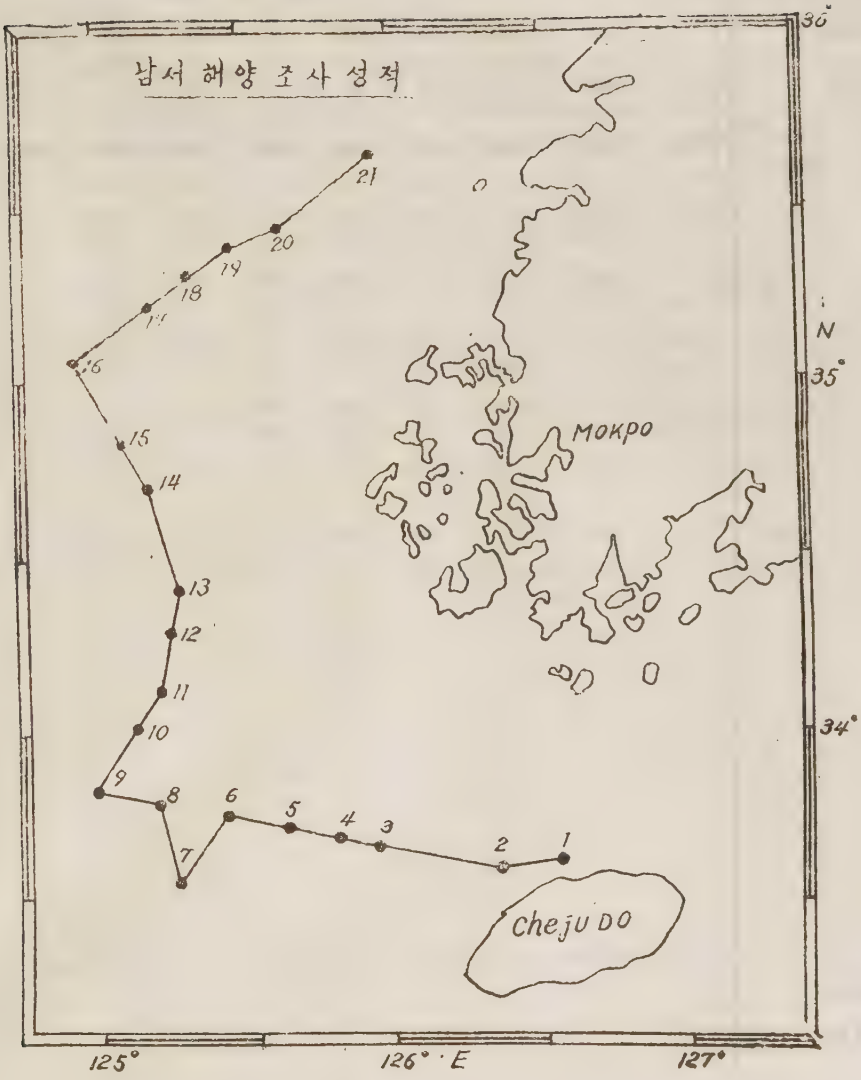
Date									
St No.		21	22	23	24	25	26	27	28	29
Day		18	18	19	19	19	19	19	19	19
Item	Time / Z(m)	1815	2020	0230	0820	1210	1410	1945	2140	2230
T ℃	0	18.4	17.8	15.2	17.7	18.6	18.2	15.6	17.6	15.2
	10	17.6	17.1	15.0	17.8	18.5	18.2	18.0	17.0	15.2
	20	16.4	16.9	13.2	17.9	18.0	17.1	18.2	16.9	15.9
	30	16.1	16.7	12.1	16.6	16.1	15.7	17.9	16.9	15.6
	40	16.0	16.5	12.6	14.7	15.6	15.2	16.1	16.3	13.1
	50	15.9	16.0	12.7	15.5	14.8	15.2	14.9	14.0	13.1
	60	15.2	15.6	12.7	15.5	14.3	15.0	14.5	14.0	13.1
	70	15.1	15.3	12.7	14.9	14.2	14.4	14.0	13.8	13.1
	80	15.1	15.3	12.7	14.6	14.3	14.1	14.0	13.9	13.1
	90	—	15.2	12.7	14.8	14.3	13.9	14.0	—	13.1
	100	15.1	—	—	14.8	14.3	—	—	—	—
	Botm.	—	15.2	12.7	14.8	14.3	13.9	14.0	13.9	13.1
S ‰	0									
	10									
	20									
	30									
	40									
	50									
	60									
	70									
	80									
	90									
	100									
	Botm.									
Depth(m)		100	—	91	110	—	—	105	100	130
Secchi(m)		—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—
Sea		—	—	—	—	—	—	—	—	—
Swell		—	—	—	—	—	—	—	—	—
Air Temp(°C)										
Baro. (mm)										
Wind										
Cloud										
Weather		—	—	—	—	—	—	—	—	—

Date									
St No.		30	31	32	33	35	36	37	38
Day		18	19	19	19	19	19	19	20
Item	Time / Z(m)	2215	0025	0420	0625	1020	1610	0800	0120
T	0	17.0	15.3	14.7	15.1	18.5	18.9	18.7	16.4
	10	16.7	15.0	14.6	16.3	18.3	18.7	18.7	16.4
	20	15.7	15.2	13.8	16.2	18.2	18.5	18.3	16.7
	30	15.8	13.7	10.8	14.9	17.3	17.3	18.2	16.5
	40	15.3	13.6	11.4	12.0	16.2	16.9	18.2	14.5
	50	15.3	13.6	12.0	12.1	14.7	15.7	17.5	14.3
	60	15.2	13.6	12.2	12.1	14.0	15.2	16.0	14.3
	70	15.1	13.6	12.2	12.1	14.0	15.3	15.4	14.3
℃	80	15.0	13.6	12.2	12.1	14.0	15.4	15.3	14.3
	90	15.0	13.6	12.2	12.1	14.0	15.0	14.8	14.3
	100	—	—	—	—	14.0	14.9	14.8	—
	Botm.	15.0	13.6	12.2	12.1	14.0	14.9	15.0	14.3
S	0								
	10								
	20								
	30								
	40								
	50								
	60								
	70								
‰	80								
	90								
	100								
	Botm.								
Depth(m)		95	—	91	93	115	130	130	110
Secchi(m)		—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—
Sea		—	—	—	—	—	—	—	—
Swell		—	—	—	—	—	—	—	—
Air Temp(°C)		—	—	—	—	—	—	—	—
Baro. (mm)		—	—	—	—	—	—	—	—
Wind		—	—	—	—	—	—	—	—
Cloud		—	—	—	—	—	—	—	—
Weather		—	—	—	—	—	—	—	—

남 서 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS SOUTHWEST COAST

1966


남서 해양 조사 정점
21
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MOKPO
Cheju DO
36°
N
35°
34°
125°
126° · E
127°

서해남부선 해양관측성적

Oceanographic Data, South West Coast

Date		June								
St No.		01	02	03	04	05	06	07	08	09	10
Day		26	29	29	29	29	29	28	28	28	28
Item	Time / Z(m)	0845	0635	0345	0225	0055	0510	2330	2705	2040	1930
T ℃	0	22.5	22.9	22.6	22.6	23.0	22.5	22.5	22.6	20.3	20.6
	10	22.4	21.00	22.0	22.6	22.2	22.5	20.3	21.6	20.2	18.0
	20	17.9	19.2	12.7	15.0	15.5	8.4	14.0	15.8	16.0	15.0
	30	16.0	17.0	12.7	10.6	12.3	8.1	11.3	12.5	14.3	12.7
	40	15.0	14.6	12.6	10.4	10.0	8.0	10.0	8.5	12.4	10.9
	50	14.8	14.6	12.4	10.2	10.0	8.0	9.5	7.4	11.1	10.8
	60	14.7	14.6	12.0	10.2	10.0	7.9	9.3	8.4	10.5	9.0
	70	14.7	14.6	10.8	10.2	10.0	7.5	9.2	8.4	10.1	8.1
	80	—	14.6	10.2	10.2	10.0	7.4	9.2	8.4	9.8	8.1
	Botm.	14.0	14.6	10.2	10.2	10.0	7.4	9.2	8.4	9.8	8.1
S ‰	0										
	10										
	20										
	30										
	40										
	50										
	60										
	70										
	80										
	Botm.										
Depth(m)											
Secchi(m)											
Color											
Sea											
Swell											
Air Temp. (°C)											
Baro. (mm)											
Wind											
Cloud											
Weather											

Date		June										
St No.		11	12	13	14	15	16	17	18	19	20	
Day		29	28	27	27	27	27	27	27	27	27	29
Item	Time / Z(m)	1813	1700		0015	0150	0330	0500	0625	0755	0930	0800
T ℃	0	20.9	20.3	22.0	21.5	21.5	21.5	21.5	21.2	21.1	22.1	22.6
	10	16.0	17.5	21.4	17.4	20.9	21.2	21.2	20.6	20.1	21.6	22.5
	20	14.0	16.8	17.0	16.8	12.5	13.5	16.2	19.0	13.0	15.0	19.0
	30	13.5	14.9	15.4	14.3	7.5	10.5	10.7	10.8	10.9	13.5	15.(
	40	13.0	14.0	9.5	13.5	7.4	7.6	8.3	8.6	9.8	13.2	13.6
	50	17.7	13.5	—	12.0	7.2	7.4	7.8	8.2	9.5	12.7	13.5
	60	9.7	13.4	—	11.5	7.2	7.4	7.8	8.2	8.5	12.3	13.5
	70	9.7	13.2	—	—	7.2	7.4	7.8	8.1	—	12.3	13.(
	80	9.7	—	—	—	—	7.4	—	8.1	—	—	13.7
	Botm.	—	—	—	—	7.2	7.4	7.8	8.1	8.5	12.3	13.7
S ‰	0											
	10											
	20											
	30											
	40											
	50											
	60											
	70											
	80											
	Botm.											
Depth(m)												
Secchi(m)												
Color.												
Sea												
Swell												
Air Temp(°C)												
Baro. (m)												
Wind												
Cloud												
Weather												

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